DOCUMENT RESUME

ED 234 170 CE 036 841

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TITLE The Placement Handbook. A Guide for the Competitive Employment of the Handicapped.
INSTITUTION Austin State School, Tex.
SPONS AGENCY Texas Education Agency, Austin. Dept. of Occupational Education and Technology.
PUB DATE [80]
NOTE 103p.
PUB TYPE Guides - Non-Classroom Use (055)

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Adult Education; *Disabilities; Job Analysis; *Job Placement; Job Skills; *Job Training; Secondary Education; Sheltered Workshops; Skill Development; Task Analysis; Vocational Education; *Vocational Rehabilitation; Vocational Training Centers; *Work Experience Programs

ABSTRACT

This handbook stresses those components that are considered peripheral to the placement process but that must precede the actual placement. The philosophy of placement upon which this guide is based appears first. Discussions follow of the basic components of the process of training and placement of handicapped individuals, including a varied program of vocational training that has qualified personnel who use the latest and most successful training methodologies and techniques, the opportunity for client demonstration of skills in a sheltered atmosphere, and procurement of work contracts for the development and refinement of employable skills. An overview of placement techniques is then presented. The importance of private industry to rehabilitation workshops is emphasized, and the placement person's role in client placement in industry is briefly addressed. Appendixes, amounting to approximately three-fourths of the guide, include information on and procedures for developing a task analysis and examples of task analyses, examples of data collection regarding a client's baseline assessment and progress, a guide to sheltered workshop certification, information on developing profiles, excerpts from the Personal Social Adjustment Training Curricula Manual, and information on job analysis and job requirements. (YLB)

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The Placement Handbook:
A Guide for the Competitive Employment of the Handicapped

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Funded by The

Texas Education Agency

Department of Occupational Education and Technology

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Acknowledgments

The following staff members of the Austin State School Rehabilitation Center deserve to be recognized for their contributions to various aspects of the preparation and validation of this manual : Ms. Dene Graham, Mr. Robert Williams, Mr. Robert Rouw, and Mr. Tony Gaitan.

Special recognition is extended to Ms. Maxine J. Lain and Mr. David W. Gibbs of Project PreVOC - Training for Teachers of Prevocational Programs, Educational Service Center, Region XIII, Austin, Texas; North Texas State University, Center for Rehabilitation Studies; Materials Development Center, Department of Rehabilitation and Manpower Services, University of Wisconsin-Stout; the U.S. Department of Labor, Employment Standards Administration Wage and Hour Division, and Federal Programs Advisory Service; and the National Center for Law and the Handicapped. Their contributions to the development of this document are greatly appreciated.

I PHILOSOPHY OF PLACEMENT

The purpose of all professionals in the field of vocational rehabilitation is to provide relevant vocational training and subsequently, appropriate placement of the handicapped. In examining this purpose there are certain interpretations that come to light. For instance, the term relevant vocational training is one that is open to interpretation. In the past, relevant training has been training directed toward only those employment skills that have been traditionally considered applicable to the handicapped. This has caused a serious problem in widening the job market for the handicapped, because they only receive training in jobs that are already accepted as suitable for their employment. This interpretation appears repeatedly in the present attitudes toward the placement of the handicapped. Placements have occured in the "traditionally allowed" job market, to the near exclusion of innovative non-traditional career possibilities for the handicapped. In order for professionals in the field of vocational rehabilitation to fully realize their purpose, it is essential that they adopt practices that will enable the handicapped to develop, fulfill, and maintain personal and occupational independence. The result of this realization should be the elevation of community awareness relative to the needs of handicapped citizens, and an ever widening job market for career opportunities for the handicapped.

It is important for the placement person to understand that "equal opportunity" for employment does not simply mean employing the handicapped in whatever job we have available. It means the opportunity

for equal employment as well. In other words, the handicapped should have the opportunity to choose their employment from a variety of different fields, just like the non-handicapped worker.

The placement person, in familiarizing himself with the handicapped individual's needs and desires, should not hesitate to broach new areas of employment in the community job market that have never before been available. He must realize that the handicappeds' needs do not just include employment, but also encompass improving self-image, maintaining pride, and self-respect, just as those of non-handicapped workers. With this in mind the placement person should understand that not just employment, but employment in a rewarding job is essential to fulfilling handicapped workers' needs. The concept of equal employment, for the handicapped, especially the mentally retarded, must serve the same purposes as it does for the non-handicapped worker. It must be viewed as a "career opportunity", instead of simply being viewed as employment, void of possible career opportunities.

There are certain aspects that are common to all methods of training and placement of the handicapped. The utilization of successful training methodologies and techniques, contracting work for the development and refinement of employable skills, the teaching of appropriate job related behaviors and performance expectancies are among those most common. All aspects should be directed toward overcoming the emotional, social, and behavioral barriers to successful employment. These barriers, in most instances, supercede those caused by the limitation resulting from the handicap itself.

In order to overcome the obstacles to employment of the handicapped, vocational rehabilitation should be committed to offering a wide spectrum of skills training to provide the handicapped with a means to meet the

varied requirements of competitive employment. After the handicapped worker receives vocational training, it is then the responsibility of placement personnel to ensure that "equal employment" opportunities are made accessible through their services.

Certainly, it is not advocated that a handicapped person be employed in a job for which he is totally unqualified. But it appears that the practice in the field of vocational rehabilitation has been to simply settle for whatever the community job market has offered. What is advocated is that the placement person consider it an integral part of his job to contact private industry and "pave new roads" for the possible placement of the handicapped.

To be successful in this it is essential that the placement person know what type of training will be required for a particular job and ensure that the individual receive the proper training in the skills required. In addition, an understanding of the job performance criteria, along with the environmental, social, and cultural components of the job are a responsibility of the placement person in preparing the handicapped person. Once these things are done, real placement has a much better chance of succeeding.

The placement person should possess certain characteristics that enable him to fulfill his responsibilities to the employer and to the employee. He must be flexible, patient, and well versed with all aspects of the job community in which he is located. He must believe that what he has to offer private industry is a valuable commodity, the handicapped worker. He should be familiar with all the facts regarding the handicapped worker, such as his dependability and other traits. He should be able to present the handicapped to the job community as an asset. All to often, the placement person views his coordination

with employers as a benevolent endeavor. He should of course, answer any questions that the perspective employer may have regarding their employing the handicapped person.

The placement person's first and foremost concern should be to find employment in the area in which the handicapped individual's interest lies. After having exhausted all possible resources in that area, he should then consult with the individual on alternative placements. He should first be obligated to satisfying the desires of the individual he is trying to place, then follow whatever measures are necessary to assure that the placement is given every affordable opportunity to succeed.

Placement personnel and all professionals in the field of vocational rehabilitation should consider it their responsibility to try to widen the scope of jobs available to the handicapped. This can be achieved by offering a larger variety of training programs, making their progress a focus in the community, and developing new industries as employers of the handicapped. Once this is attained, we can say that the handicapped are truly offered "equal opportunity" in employment.

Most manuals, placement "experts", and professional conference organizers stress the purely placement oriented aspects of the placement process to the exclusion of all other aspects that must precede the actual placement. This handbook is designed to stress the many components of the placement process that are usually considered merely peripheral, but are in fact as important as the actual acquisition of a job, to the entire process. This is an important distinction, because unless the person is adequately trained the result will most probably be eventual failure on the job. Then the failure bound "pick a job and place him" cycle will begin again.

II ESSENCE OF TRAINING

Before placement of clients into a community job market can become a reality, it is essential that a varied program of vocational training be available to the client. This training should encompass special skills training in vocations that will provide opportunity for comparable competitive employment. A means to acquire, practice, and refine these skills, and a sheltered atmosphere in which to demonstrate perfected performance of said skills, is necessary before entering the competitive job market.

Training is an integral part of the overall placement procedure. In order to approach private industry, it is necessary to have a valuable commodity to offer them. The acquisition of the skills to develop this commodity is only achieved through exemplary training programs. It is the responsibility of professionals in the field of vocational rehabilitation to provide this exemplary training. This can be done by adopting the attitude that it is not necessary to limit the areas of training to the conventionally accepted areas with which the handicapped have always been associated. A departure from the stereotypic roles that have been forced on the handicapped must take place. A resolution must be made to search for new areas of employment, rather than settling for those jobs that are already available and have been traditionally available to the handicapped.

For a training program to meet the needs of the handicapped, one of those being the acquisition of skills necessary to acquire and maintain competitive employment, it must have qualified personnel who are adept in a variety of training techniques, with an

emphasis on training and the acquisition of relevant skills, rather than on production for it's own sake. "Relevant skills" implies a variety of skills training that encompasses the clients' personal interests and goals, as well as what is needed by the employer.

To explain further, we must examine each of these areas. Trainers must have knowledge of the latest and most successful training methodologies: task analysis (see Appendix A), behavior modification, job re-design, and a background in the specific handicap of the client with whom he will be working. His training emphasis must be in using whatever appropriate methods are necessary to ensure the acquisition and retention of the skill being taught. Task analysis proves extremely useful in breaking down any new and complex job task that is to be taught. No matter how complex a skill may seem, it can be disected into small achievable components, with consideration for the individual handicap. It is not necessary to teach the components "developmentally". However, this may be left to the individual training style of the professional. The success in the utilization of task analyses with the mentally retarded has been demonstrated with the Special Occupational Skills Project, (Austin State School 1978-1980). A task analized curricula manual was written that encompasses each area of training for the project. The success, in the certification of clients' abilities to demonstrate competency in each of the areas, has been well documented.

Knowledge in the area of behavior modification is also helpful in dealing with the handicapped, and is essential in working with the mentally retarded. It is used as a means to motivate and maintain an interest in the skills being taught, which will expedite the attainment of those skills. It is also a means for the trainer to alleviate some of the "burn-out" symptoms and frustrations that seem to be pre-

valent in working with the handicapped. It may be used to reinforce, reiterate, and prioritize the aspects of the training that is taking place.

Having knowledge of the specific handicap with which the trainer will be dealing, is essential to the success of the training. This knowledge enables the trainer to anticipate difficulties the client may have in learning the skill being taught, as well as re-design of work areas, and re-structuring the class accordingly. It is also an important factor in being able to re-design a competitive job sought by the handicapped individual. (This can be done most of the time with no expense to the employer.)

The ability to re-structure a job to facilitate the learning of the required skills and duties is a requisite of the trainer. It is an aid in the initial teaching of a skill and also an aid to the employer who may be hiring the handicapped individual. Many times a trainer or supervisor will say they have worked with a specific handicap for many years, but that does not necessarily mean they have learned and applied the expertise needed.

The direction and emphasis of all aspects in this area must be focused on training. It is imperative that this be the foremost concern of the personnel involved in teaching the desired skills. All too often, in traditional workshop settings, the goal of training the acquisition of job related skills is lost in the maze of contract work and production quotas. This is not to say that production to the private employer is not important, but before production can be the subject of concentrated effort, the knowledge and demonstration of the skill must be present and refined. In order for this to be achieved, the initial emphasis must be on training.

Once the skill is acquired then an increase in production rate will naturally follow. This is nothing new, but it is proposed that we use these principles with the handicapped, just as we want them applied when we are learning a new job.

Finally, a variety of skills training must be present in order to accommodate the many varied interests and desires of the clients, which were discussed in the philosophy of this document. If we are to offer private industry an untapped personnel resource, and offer increasing career opportunities for the handicapped, it is important that existing training programs are extended to include areas of the community job market that were previously considered off limits to the handicapped. In order to accomplish this, we can use the training methods mentioned above and make our time, programs, materials, and efforts a resource for the handicapped, rather than a set of "professional predispositions" that dictate what the opportunitites will be for the handicapped.

III DEMONSTRATION OF SKILLS

Before placement of the handicapped can be accomplished, there exists a need for the demonstration of skills in a sheltered atmosphere. This enables the client to perform required duties independently, under the attentive eye of the trainer, without fear of making a mistake with a new employer. It also provides an opportunity to refine and correct any skills that would not meet the expected performance standards of the employer.

The attitude of the trainer must be one of patience and commitment to teaching the required skills. The trainer should not make the error of expecting the worker to be accomplished in initially performing the required vocational skills. After all, the trainer is hired to train and eliminate as many of the skill deficiencies as possible. Too many times in rehabilitation services, expecially with the mentally retarded, trainers expect the clients to already possess the requisite skills for contract work tasks, and consider themselves "foreman" rather than trainers. To prevent this attitude, a means must exist of explicitly establishing job expectancies of the trainer. In other words, it is not the job of the trainer to establish subjective prerequisite skill levels for entry into a specific type of work. It is part of the trainer's job to motivate the client and of course, this must be instilled by a supervisor who is a creative leader and a good trainer in his own right.

The trainer must embody the description of his title, and view his place in the overall scope of the client's program as the person through whom the client will acquire the necessary skills to perform

the duties required. Criteria must be set previously to decide when a client has acquired the requisite skills. It is important that the criteria be set at the beginning of the training so both trainer and client will have a means of measuring progress toward the goal, and a way of deciding when the goal has been reached. Once the training criteria has been met and the client has demonstrated competency in the requisite skills, then the client should be advanced into a job that allows him to use the learned skills.

Supervisory input into the desired performance criteria is necessary to aid the trainer in structuring his class so that the client is taught the necessary things that will help him to succeed. Pre-assessment measures of all skills should be given to the client so that the trainer will know exactly what areas need intense concentration and what areas simply need refinement. Performance assessments need to be given continually throughout the training to keep an accurate record of progress. Final performance criteria measures need to be used to validate and document competencies. [Examples of desired criteria, data collection, and assessment measures can be found in the Power Equipment Training Curricula Manual; (Drury, Roderick, 1979). Refer to Appendix B for examples of formats that can be followed or adapted to suit particular program needs.]. It should be reiterated here, that all measures and expected performances must be based on observable and measurable behaviors in order to be objective.

Once a client has reached criteria and has adequately demonstrated the requisite skills, every effort should be made to place him into the most appropriate employment that will enable him to use his newly learned skills. Follow-up training may be necessary to ease the transition

from training atmosphere to actual employment. Every available resource should be used to help make the placement process successful.

If the client continues to have difficulty in his new employment, after all possible resources to ensure success have been exhausted, an alternative placement can be considered. However, the alternatives should be on a lateral plane, relative to the client's current employment. In other words, since the client has demonstrated enough competency in his newly learned skill to be initially placed, he should be given every opportunity for employment in an area that will allow him to use at least a portion of these skills while correcting the assessed deficiencies. He should not be placed back into a previous work area, where regression may ensue. His employment placement needs to be upward or lateral and not ventral, to ensure retention of those skills that have been demonstrated. Otherwise, the effort, time, and accomplishments made in the training and acquisition of new skills will have been unwisely planned and coordinated.

A note of emphasis needs to be addressed here. Many supervisors and trainers will read the foregoing section and say, "What's new . . . I know all of that." They may well "know all of that"; but are they practicing the methodologies expressed in their day to day rehabilitation activities? Many times the answer is no. We need to implement what we know, not just engage in didactic conversation.

IV CONTRACT PROCUREMENT

In procuring contracts for sheltered workshops to implement training programs, it is essential that the purpose of the vocational rehabilitation process be kept in mind. The contract must lend itself to the training of the client primarily, and production must be considered secondly. Contract work is only a medium for teaching skills and expected work performance standards. They are not the purpose of sheltered workshops, nor should they be private industry's means of eliciting inexpensive, prompt, quality work. Private industry must start and continue to accept the handicapped as their employees and not just a work force for sub-contract purposes. If a client can do assembly tasks, according to industry standards and production rates, then a concentrated effort should be made to place that person with the private industry as an employee, instead of being kept in a sheltered workshop performing the same tasks. Of course, the client's general behavior is also a factor that is relative when making that decision.

Contracts should be subject to change, in order to meet the client's needs. If a contract requires a production rate far above the probable abilities of the clients, then it is not a suitable contract. Likewise, if the contract requires skills far below the clients' abilities, it is not suitable, especially if the production interferes with the primary objective of training. Time must be allowed for the client to learn, practice, and refine the skills desired, and only contracts that suit those needs should be accepted.

If the immediate goal is considered as training, and the ultimate

goal as placement in competitive employment, then it should only follow that the contracts change as the clients progress, and skills are mastered. There should be sufficient contracts available to train a wide spectrum of skills. This would ensure alternative areas to those traditionally accepted as viable for the handicapped. Procuring contracts in new areas of skills will lay the ground work for placing the handicapped in jobs previously considered too complex for the handicapped. There are several reasons why certain areas are considered too complex for the handicapped, some of which are: no prior experience, unavailability of on-the-job training, or simply, just never considered as areas for possible employment. Having contracted work in new innovative areas would allow the handicapped to break into new realms of the community job market. It would serve as a means of publicizing to private industry that the handicapped are a resource as employees. It would also serve a good purpose in the awareness that they are productive members of the public community.

Procuring appropriate contracts to provide viable work for the clients is an integral part of the vocational rehabilitation process. A study of the clients' needs and desires should be made and businesses should be sought that can supply suitable sub-contracted work. Before bidding on a contract, consideration must be given to space, materials, and equipment that will be necessary to do the contracted work, as well as amount of supervision required, individual instruction, and adaptability of the clients' handicaps to the work setting and work tasks. These must be considered. With these considerations in mind, it is essential that the contract procurement person establish and maintain a viable communication network with the trainers and supervisors who are

responsible for the delivery of training services.

Contract work should be considered temporary. It should be only a means of providing actual tasks that will allow the clients to learn specific skills. It should be understood, that although contracted work is very important in providing an actual work environment, it is not the end result in the vocational rehabilitation process. The end result should be placement in competitive employment (if appropriate) and this must be realized from the on-set of training. Though the procurement of contracts is, understandably, a difficult task, contracts must be procured that enhance the "training goals" of a sheltered workshop. All clients will, most assuradly, not be suitable for competitive employment, but contracts should provide the avenue to competitive employment for those who have the ability. Sophisticated contracts can provide "work" for those who will probably remain in a sheltered environment, but simultaneously these contracts will provide the channel to the community for those clients who do possess the skills. It is impossible to know which clients have the skills to progress to competitive employment, unless the sub-contracts are sophisticated enough to tap that potential. With these considerations in mind, it is essential that the contract procurement person establish and maintain a communication network with the trainers and supervisors who are responsible for the delivery of training services.

V OVERVIEW OF PLACEMENT TECHNIQUES

A common aspect of all placement techniques should be a means for the placement person to evaluate applicable job skills an individual may possess, where the individual's interests lie, and their expectations of employment. These aspects are as important as the availability of placement possibilities.

Why is it that the many virtues of the handicapped as a valuable resource have been reiterated numerous times and still they are left to work in jobs that have no room for advancement? If we credit the handicapped person with the ability to learn related job skills, we should credit them with the ability to desire meaningful employment. If it is recognized that the handicapped person has the abilities to perform requisite tasks, then it must be recognized that the handicapped person may have the motivation to attain and maintain competitive employment. When the average person looks for employment, they do not simply seek a means of earning money. They consider such things as, the potential for happiness in performing the duties required of the position, the learning opportunities available, and the advancement possibilities. It is realized that there is a prob lem in placing the handicapped in private industry initially, but if professionals are to make new strides in the area of placement, then they must develop innovative approaches with respect to placement technology.

Placement personnel should have access to and know the various resource materials concerning the Federal/State laws and regulations

regarding the hiring of the handicapped. (Examples of such regulations may be found in Appendix C). The placement person should be well versed in this material and be able to recall it for the employer and employee. This information is valuable in many ways. It can be used as a means to acquaint the placement person with a variety of protections offered for the handicapped and assurances that increase the possibility of providing varied types of employment. It may also be used to persuade employers to hire the handicapped, offering them evidence that they have certain protections as well.

Placement personnel need to analyze certain factors when considering placement for a handicapped individual. It is important to have as much information about an individual as possible, in order to develop a profile. (Examples of profiles, types of information needed, etc., may be found in Appendix D). This can be done by examining the clients' prior training and education and listing the employment skills and individual talents, along with compiling the past employment records.

The client should be involved in orientation activities that will aid his transition into the working world. These activities should cover the area of personal and social adjustment training. This should include orientation related to the various types of employment applications, special considerations for accommodating a particular handicap, availability of transportation to and from the work site, and interviewing techniques. [Examples of this type of adjustment training can be found in the Personal Social Adjustment Training Curricula Manual, (Drury, Shellhaas, 1976). Refer to Appendix E.] Money management, hygiene, and grooming may also be included, should the individual need instruction in these areas. This training

should be customized to suit the individual needs of the clients, as should all of the training.

After having developed a profile the placement person should then perform a "job analysis". There are certain core requirements that cut across a wide variety of jobs. (For examples of these requirements and job analyses refer to Appendix F). However, when dealing with specific jobs it is important to include the following items in a job analysis: job title, number of days worked, salary, turnover rates, possible promotion availabilities, transfer possibilities, purpose of the job, major tasks required, production and efficiency standards, job setting, hazards and supervision. Some of these items may seem irrelevant with regard to the placement of a handicapped person, but they are the same areas that we take into consideration for ourselves in finding employment. It is imperative, to be truly successful in placement, that we give the handicapped the same considerations we reserve for ourselves when trying to find employment. These are some of the areas that have been ignored in conventional practices of placing the handicapped. Other areas may need to be addressed as well as those mentioned. Information regarding inter-personal relationships with employees, and related aspects of the job environment, are also crucial and need to be addressed in the placement person's counseling sessions.

Counseling is one of the most important instruments used by placement personnel, and involves more than having private sessions with the client. It not only aids in finding appropriate placement, but can be used as a follow-up measure to ensure a successfully sustained placement. If done correctly, counseling provides a forum for

the employer to state his expectancies and evaluations of the new employee. Discussion may include areas that are critical to the employer and his business, as well as those in which a compromise may be reached in order to eliminate any deficiencies the employee may have in those areas. The employee benefits greatly through counseling, as well. Counseling should be provided for the employee in such a manner that he considers it a source of reliable information regarding how to improve his job performance. It should also serve as a medium to relate difficulties, frustrations, and problems encountered while adjusting to his job.

The very important and innovative use of counseling should also be to acquaint and educate private industry regarding the needs of the handicapped. Private industry must be made aware that it is to their advantage to hire the handicapped because of the qualities that make him a dependable, productive employee. In addition to serving private industry's need for quality employees, it will also increase the community acceptance of the handicapped.

In summary a few points need to be addressed. The critical element in the placement "planning process" is the identification of a goal for the client and a knowledge of the required goal functions. The more specific this information, the more specific the program objectives, and the more likely the chances for eventual client success. Placement planning is a team function, in which at least three persons should be involved in the planning process we have described, i.e., placement person, employee, and employer. The placement representative has the responsibility for identifying, in detail, the required goals and objectives. It is obvious that placement service does not exist in and of itself, but rather interrelates with other components in the

rehabilitation delivery system in a way which ultimately benefits the client. A management decision to implement a progressive placement component is the essential ingredient of success.

VI IMPORTANCE OF PRIVATE INDUSTRY

Private industry is important to all rehabilitation workshops, because it provides a model from which to shape operating procedures. This is especially true if it is the intention of the workshop to provide applicable work experience. What is needed is work that is representative of tasks required by private industry in order to teach employable skills. Payroll procedures, job design, appropriate behavior, performance standards, and production rates should closely approximate those existing in private industry, so that clients have a realization of what is expected of them in competitive employment. It is virtually impossible to merely counsel these aspects, they must be taught through progressive training methods.

After a handicapped individual has acquired employable job skills, then private industry becomes the means by which the client is integrated into the community environment. In order for the handicapped to feel that they are truly a part of their community, it is imperative that they work in that community. This need is one that is often somewhat overlooked. Instead of achieving acceptance of the handicapped into the community work force, professionals often settle for workshop type settings, sub-contracted work, or stereotypic job placements with no future for the employee.

Private industry can offer a multitude of alternatives to the handicapped in career opportunities. In order to accomplish this, however, they must accept the handicapped as a source of quality employees. This can be achieved by demonstrating to private industry

that the handicapped are reliable, dependable, and highly qualified. Private industry is production oriented. Therefore, private business needs to realize that it is not appearance that is the overwhelming determinant but rather quality of performance in required job duties. Once this is accomplished, it is the responsibility of the rehabilitation process to provide the handicapped with the necessary skills. This is only accomplished when there is a rehabilitation management decision to provide applicable work training.

In order to successfully give the handicapped an opportunity for equal employment and career growth, private industry must be utilized and become a placement resource for the handicapped. Vocational rehabilitation must expend great amounts of time and energy in convincing private industry to hire the handicapped. Private industry is already aware that the handicapped produce and perform quality work. They have been sub-contracting jobs to vocational workshops for years. Now they must be shown that it is cost effective for them to hire those same handicapped individuals for their companies. Of course, it is imperative to work with private industries that have more than "dish washing" jobs, in order to accomplish the goal of substantially integrating the handicapped into the community.

VII PLACEMENT IN INDUSTRY

To achieve placement of the handicapped in private industry, after providing the necessary training, placement personnel must approach private industry aggressively. Evaluations, performance data, demonstrations of ability must be made available to private industry. All types of transitional adjustment training that the prospective employer can utilize, as well as counseling services, must also be available to achieve success.

People place people, people hire people, not agencies, not entities. In other words, it is an extremely personal process that requires interaction and communication on the part of all individuals involved. The placement person must ask private industry to hire handicapped individuals using the same criteria that are relevant for non-handicapped persons. Therefore, consideration must be given to job advancement and other aspects that affect success or failure.

It is an individual effort on the placement person's part to break through the barriers to successful employment of the handicapped in all applicable areas of the community job market. With this in mind, every possible resource must be used. They must act as mediators between employer and employee, mediating any fears or inhibitions that are present on both parts. They must be equipped to answer any questions that may arise and be there to offer assistance, to help resolve any difficulties. They must provide input that is essential in the training of handicapped individuals. They must be

a resource to the trainer and workshop program, by supplying information that will aid in taking appropriate direction relative to training. The placement person must be counselor for the handicapped employee, aiding them in understanding what is expected of them, and providing help to achieve their expectations. Finally, they must be the contact person for private industry. The placement person should essentially be a recruiter for the needs of private industry and a supplier who provides well trained and skilled employees.

Appendix A

The content of this appendix includes a basic explanation of task analysis, how to develop a task analysis, definitions of common terminology used with reference to task analyses, as well as examples of task analyses. A task analysis should be developed for every task taught in a vocational workshop. There are many factors that emphasize the importance of writing task analyses. Among these, is that a task analysis enables the trainer to teach a task developmentally, if it suits the client's needs. It is also possible to teach those steps of a task that a client can master rapidly at first, therefore allowing for more time to be allocated to those in which he needs special attention.

*Task Analysis: An explanation of the System and Further Explanations of Some of the Terms; "Try Another Way" technology, Dr. Marc Gold, Marc Gold & Associates, Inc., Texas Office; reproduced from Project PreVOC, Training for Teachers of Prevocational Programs, developed and edited by Maxine J. Lain, Project Manager, David W. Gibbs, Project Consultant, Project PreVOC, Grant funded from the U.S. Office of Education, D.H.E.W. Bureau for Education of the Handicapped, under P.L. 93-380, Title IV C, Grant #77131351, and produced at Education Service Center, Region XIII.

*Task analysis examples reproduced from, Power Equipment Training Curricula Manual For Power Equipment Training of the Handicapped; Stephen Drury, Rick Roderick, written for the Special Occupational Skills Grant Project, funded by the Texas Education Agency, Department of Occupational Education and Technology.

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TASK ANALYSIS: AN EXPLANATION OF THE SYSTEM AND FURTHER EXPLANATIONS OF SOME OF THE TERMS

Task analysis is defined here as all of the activity which results in there being sufficient power for the learner to acquire the task. Power refers to the strategies and procedures the trainer must utilize in order for the learner to acquire the task. The concept of power is intended to place responsibility for reaching criterion with the trainer. The more difficult it is for someone to learn a task the more power the trainer must utilize. The term task analysis is used differently in different situations by different task analysts. The particular form of task analysis described here has been designed specifically for developing training procedures for the moderately, severely and profoundly retarded and multiply handicapped.

There are three major components to Task Analysis:* method, content and process. Method refers to the way in which the task is to be performed. There are several different methods, for example, of putting on a coat. One is to start by inserting an arm into a sleeve and bringing the coat around to the other side; a different method starts by placing the coat on the table, inserting the arms into the armholes of the coat, and then brining the arms up and dropping the coat over the head. For production-line tasks there are almost always numerous alternatives for how the job is designed, each one being a different method.

For a particular task a subjective decision is made by the person doing the Task Analysis (task analyst) as to which method, of the methods available, is the best one. The availability of alternative methods is a function of the creativity and experience of the task analyst. It is usually more difficult to identify alternatives with familiar than unfamiliar tasks. For example, when designing a Task Analysis for putting on a coat, care must be taken to not restrict the alternatives to the method which the task analyst uses for putting on his own coat. With an unfamiliar task such as the assembly of a milking machine pump, however, the task analyst has no preconceived method and so can explore alternatives without prejudice.

In writing a Task Analysis, a statement regarding the method should be made only in those cases where it adds clarity to the analysis. For example, a Task Analysis on the use of a knife and fork might include a statement that the "European method" will be used. Anyone knowing the European method will immediately know how the knife and fork are to be positioned. In most instances, however, the method is described through the Content Task Analysis.

*Where the term Task Analysis is used it refers to the specific form of task analysis being described.

Content refers to the steps into which the method is divided. Content is what the learner acquires or is expected to do. Content Task Analysis means breaking a task down into teachable components. Teachable refers to a judgment made by the task analyst regarding the size of the components into which the task will be divided. In writing a Content Task Analysis the steps are numbered, and described in detail. The Content Task Analysis is similar to a set of instructions that one might obtain with something that was purchased unassembled. The descriptions of the steps, however, are only for the trainer's understanding of the steps of the task. Nothing is mentioned in the Content Task Analysis regarding the trainer function or the interaction between the trainer and the learner. What the trainer does is described in the Process Task Analysis.

Process Task Analysis means designing strategies for teaching the content. Process refers to the way in which the task is taught. Process Task Analysis has three subdivisions: format, feedback and procedure.

Format refers to the presentation of the content. Examples of format for single pieces of learning include match-to-sample, which consists of presenting an object (stimulus) and having the learner select from a group of objects (response choices) the one that matches; and oddity, where the learner selects from a group of objects the one that does not belong. Examples of format for multiple pieces of learning include backward chaining, where the last part of the task is taught until the learner knows it, then the next to the last part, and so on, until the entire task is learned; forward chaining, where the first part of the task is taught until the learner knows it, then the next part along with the first part, and so on until the entire task has been learned; and total task presentation, where the learner performs the entire task every trial, and where errors and assistance diminish over trials until the task has been learned.

Feedback refers to how the learner knows what is wanted and if he is achieving it. Feedback concerns the way in which the trainer provides the learner with information that is conveyed to the learner prior, during or subsequent to action by the learner. Examples of broad categories of feedback would include stimulus control procedures, where the emphasis is on the organization of materials and environments in advance of learner behavior; reinforcement control procedures, which emphasize positive, negative or neutral consequences following action by the learner; and the perspective of the Information Theorists related to knowledge of results, which conceptualizes feedback as much more than the elevation or reduction of need states. From this last perspective, reinforcement is one subcategory of feedback.

Feedback, both in terms of instructions and consequences, may be verbal or nonverbal. Verbal feedback, especially in terms of instructions, is efficient, when it works. That is, telling someone what is wanted of them is usually much faster than showing them or manipulating their hands. For some learners, however, limitations in language skills restrict the amount of information obtainable through language. The use of verbal consequences, in the form of information provided after action on the part of the learner, or verbal reinforcement, is suspect with these learners for the same reason. Examples of nonverbal feedback include color-coding, fading, imitation, direct manipulation, and silence. In writing a Task Analysis general statements regarding feedback are given. Examples of such statements include: "Try another way," "The flat part goes up," "Pick it up here."

Procedure refers to a description of the proposed training plan. The intention of the procedure section is to provide the trainer with sufficient description of the interaction between content and process for the trainer to be able to proceed. The procedure includes a description of the first actions of the trainer. Examples include: "The trainer points to the first part; if the learner does not reach out and take the part, the trainer takes the learner's left hand and places it on the part." The procedures section of a Task Analysis obviously cannot detail the entire training situation. The intention is to describe, sufficiently, how the feedback procedures will be used with the content of the task so the trainer will understand how to implement the Task Analysis.

The next aspect of Task Analysis that needs to be mentioned is criterion. Criterion is defined as a predetermined point at which it is assumed learning has taken place. This point depends primarily on the characteristics of the task. The judgment of the trainer is also important in establishing the point. This level of criterion is referred to as Criterion I. The Criterion II level for any piece of learning is repeated demonstration or performance of the behavior under the conditions where it is ultimately expected to occur. As an example, Criterion I achievement for brushing teeth would be x consecutive demonstrations of the specified behavior. The Criterion II level for the same behavior would be x number of consecutive, correct brushings, in his home or wherever he regularly brushes his teeth, independent of any prompts or assistance. Until the learner meets this second criterion, it cannot be assumed that meaningful learning has taken place.

Data collection should be an integral part of any training session. The data collection form used in our research consists of rows and columns. Each row represents one trial (one completed cycle of all the steps of the task). The columns represent the steps into which the task has been divided, that is, each column corresponds to one step in the Content Task Analysis. The data collection form should also include the name of the individual being trained, and additional columns for the date of each session, and anecdotal information which might be of interest and which would not otherwise be shown on the data collection form. Time is also very useful information. For the tasks used in our research, plus (+) and minus (-) signs are used to describe learner performance on each step. Decisions are made in advance of training regarding what will be accepted as a plus for any particular step of the task. Inspection of the data forms provides a clear picture of the learner's activities. Examination of the rows shows how the learner is doing at any point on the entire task. Examination of the columns indicates which particular steps the learner is having difficulty with and shows progress for particular steps of the task.

The seven-phase sequence described below can provide a training situation where failure is the most difficult task of all.

The Seven-Phase Sequence for Doing
a Complete Task Analysis

Phase 1. Decide on method.

Phase 2. Do a Content Task Analysis.

Phase 3. Do a Process Task Analysis.

Phase 4. Begin training.

When a decision has been made that the Task Analysis needs revision, do one of the following at a time; if it doesn't work, go on to the next. There will, of course, be exceptions to this.

Phase 5. Re-do the Process Task Analysis.

Question A: Is there additional or alternative feedback that might work?

Question B: Is there a different format that might work?

Phase 6. Re-do the Content Task Analysis. If more power is needed,

Question: How can the part or parts of the task which are not being learned be subdivided into smaller, more teachable components?

Phase 7. Re-do the method.

Question: Is there an altogether different way of doing the part or parts of the task not being learned?

What happens when a task analysis has been done, people have been trained, and some of them have not learned the task? The following description of Phases 5, 6 and 7 provide for revisions in the previous steps, which were described above.

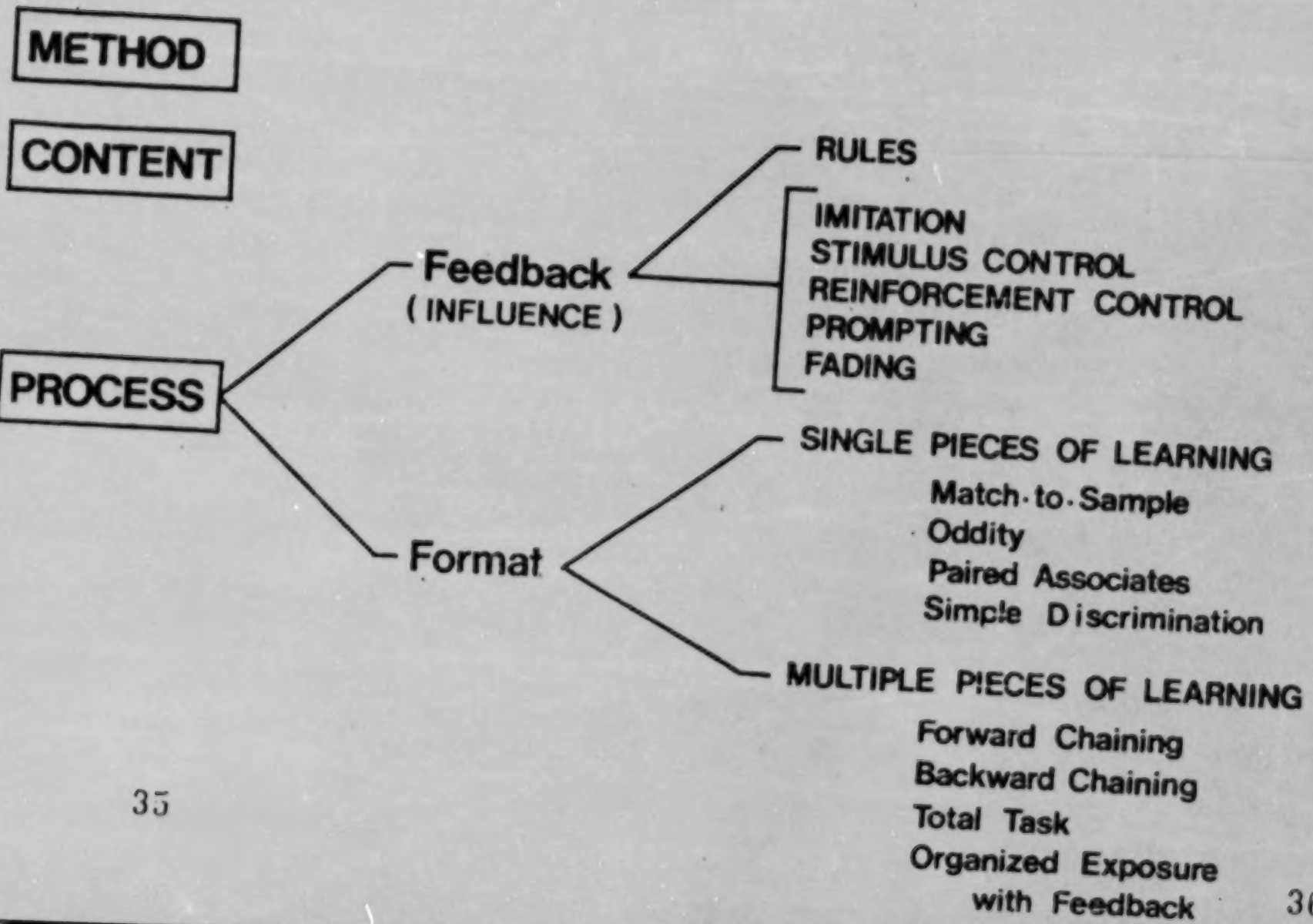
Phase 5: A decision to move to Phase 5 (or 6 or 7) is based on the judgment of the trainer. The decision is that, for a particular learner or group of learners, the initial Task Analysis has insufficient power for criterion to be reached. A decision to go to Phase 5 generates the following questions: 1) What are some other kinds of feedback that might be utilized? If visual discriminations were being taught using only the expression, "Try another way," other verbal cues such as, "Try another way, the flat part goes up" might be tried. 2) Should a different format be tried? If the original Task Analysis calls for the use of a total task format, for example, changing to a backward or forward chaining format might facilitate learning. Phase 5 should result in an increased number of individuals who reach criterion.

Phase 6: A decision to move to Phase 6 generates the following question: How can those steps which are not being learned be further subdivided into teachable components? If one step of the task is "Pick up the sock," this might be subdivided into, "Point to the end of the sock that has the hole," "Insert thumb into hole," "Grasp sock by bringing forefinger down on outside of sock," "Lift sock." Phase 6 should result in a further increase in the number of individuals who reach criterion.

Phase 7: A decision to move to Phase 7 generates the following question: Is there a different way to do the task or a particular part of the task with which the learners are having difficulty? In making a bed, for example, one can

unfold the top sheet, then thrust it across the bed. An alternative method might include placing systematically pre-folded top sheets at the foot of the bed, at one corner, with the folds of the sheet being in a specific orientation, so that the sheet unfolds into its proper position on the bed. Phase 7 involves the selection of a new method, a new Content Task Analysis (Phase 2) and might require changes in feedback (Phase 3). It should be noted that for any given task many methods are probably available and, for each method, a wide variety of Content Task Analyses can be chosen.

Task Analysis Structure



The following examples of task analysis reproduced from: Power Equipment Training Curricula Manual For Power Equipment Training of the Handicapped; Stephen Drury, Rick Roderick, written for the Special Occupational Skills Grant Project, funded by the Texas Education Agency, Department of Occupational Education and Technology.

Examples of task analysis, content task analyses are found under each numbered heading entitled Task Analysis, process task analyses are found under each numbered heading entitled Training Sequence.

3.03 Operational Safety Sequence for Radial Arm Saw (Trainers are to insure that these sequential guidelines are met with a maximum of client participation).

3.03.1 Pre-Operation

3.03.1.1 Saw is sitting level and stable on the floor.
3.03.1.2 Stops and jigs are in place and firmly attached.
3.03.1.3 The blade is properly adjusted and tightened.
3.03.1.4 The blade guard is in place.
3.03.1.5 Electrical wiring is checked for frayed ends, loose connections, etc.
3.03.1.6 There are no obvious hazards: loose nuts or bolts, cracked covers, missing parts, etc.
3.03.1.7 There is adequate lighting in the area.
3.03.1.8 The floor is clear of debris.

3.03.2 Operation

3.03.2.1 Goggles, dust mask, earplugs, and footwear are properly worn - no loose or torn clothing.
3.03.2.2 Client/operator stands in the yellow safety area while operating the saw.
3.03.2.3 Client/operator's hands should never enter the red danger area.
3.03.2.4 Turn off the machine and unplug when making adjustments.
3.03.2.5 Turn off the machine and unplug if a malfunction occurs.
3.03.2.6 Do not attempt to stop the blade after the saw has been turned off by jamming wood or any material into the blade.
3.03.2.7 Do not leave the saw unattended while plugged in or running.
3.03.2.8 Make certain that all cutting is planned before starting the operation.

3.03.3 Post-Operation

3.03.3.1 Unplug saw.
3.03.3.2 Remove all materials used during the operation to proper storage.
3.03.3.3 Clean saw and saw area.

3.04 Task Analysis: Cross Cut (90^{o} and Angle Cut) (Trainer instructions follow each element in the task analysis).

3.04.1 Set Up (Trainers are to insure that these sequential steps are carried out with a maximum of client participation).

3.04.1.1 Arm is adjusted to proper cutting angle.
3.04.1.2 Carriage is pushed back to column.
3.04.1.3 Raw materials are located within saw area.

3.04.2 Operation Sequence* (Trainers are to insure that these sequential steps are followed by the client. Sub-steps may be developed as required).

3.04.2.1 Client/operator turns on saw.
3.04.2.2 Client/operator places stock to be cut on the saw table against the fence.
3.04.2.3 Client/operator slides the stock against the fence to his/her right until it meets the stop. Hands should not enter the red danger area.
3.04.2.4 Client/operator aligns the stock firmly against the fence to the back and the stop to the right with left hand.
3.04.2.5 Client/operator holds stock firmly in place with left hand and pulls saw across stock with right hand until cut is made. Still holding onto the original stock, client returns the carriage to the column.
3.04.2.6 Client/operator removes cut stock with right hand to the right turns off saw. If cut stock is in red danger area, it should be removed with a push stick.

3.04.3 Training Sequence (Trainers are to use these sequential steps as guidelines for training the above steps).

3.04.3.01 Trainer aids the client in turning on the saw using manual (hands on hands) guidance.
3.04.3.02 Trainer aids the client in placing stock to be cut on the saw table against the fence using manual guidance.
3.04.3.03 Trainer reminds the client to keep hands out of the red danger area, using manual guidance if necessary.
3.04.3.04 Trainer aids the client in sliding the stock against the fence to the right until it meets the stop using manual guidance.
3.04.3.05 Trainer aids the client in aligning the stock firmly against the fence to the back and the stop to the right with left hand using manual guidance.
3.04.3.06 Trainer aids the client in holding the stock firmly in place with left hand using manual guidance.
3.04.3.07 Trainer aids the client in pulling the saw across the stock with right hand using manual guidance.
3.04.3.08 Trainer aids the client in holding the original stock while returning the saw carriage to the column using manual guidance.
3.04.3.09 Trainer aids the client in removing cut stock to the right with right hand using manual guidance and avoiding red danger area.
3.04.3.10 If cut stock is in red danger area, trainer aids client in using a push stick to remove cut stock using manual guidance.
3.04.3.11 Trainer aids the client in turning off the saw using manual guidance.
3.04.3.12 Upon the clients' gaining control of the basic radial arm saw operation, the trainer fades manual guidance in favor of verbal or gestural guidance, and repeats above steps as necessary.
3.04.3.13 Trainer observes a client demonstration of a safe and efficient cut using the necessary degree of guidance (manual, verbal, or gestural), correcting client mistakes as they occur until the steps are mastered and criterion is achieved.

*These sequences are written for right hand dominant individuals. For the left handed, adjust the radial arm saw table and reverse the procedures as appropriate.

3.04.4 Criteria for Certification (Trainers are to document client skills through the use of these criteria by observing on the job performance).

3.04.4.1 Client will perform each step consecutively and without error 40 times for 5 consecutive training sessions to attain initial certification for this specific operation.

3.04.4.2 Client will perform each step consecutively and without error 40 times one week after initial certification to attain intermediate certification for this specific operation.

3.04.4.3 Client will perform each step consecutively and without error 40 times one month after intermediate certification to attain full certification for this specific operation.

3.04.4.4 Client must attain full certification on each of the Specific Operations to attain Full Operator Status for the radial Arm Saw. Client must attain Full Operator Status on each of the 3 saws to attain full certification on the power saw component.

3.04.4.5 Client must display knowledge of safety rules by answering all questions of the Power Saw Safety Training Questionaire correctly to attain full certification on the power saw component.

3.05 Operational Safety Sequence for Table Saw (Trainers are to insure that these sequential guidelines are met with a maximum of client participation).

3.05.1 Pre-Operation

3.05.1.1 Saw is sitting level and stable on the floor.

3.05.1.2 Stops and jigs are in place and firmly attached.

3.05.1.3 The blade is properly adjusted and tightened.

3.05.1.4 The blade guard is in place.

3.05.1.5 Electrical wiring is checked for frayed ends, loose connections, etc.

3.05.1.6 There are no obvious hazards: loose nuts or bolts, cracked covers, missing parts, etc.

3.05.1.7 There is adequate lighting in the area.

3.05.1.8 The floor is clear of debris.

3.05.2 Operation

3.05.2.1 Goggles, dust mask, earplugs, and footwear are properly worn-no loose or torn clothing.

3.05.2.2 Client/operator stands in the yellow safety area while operating the saw.

3.05.2.3 Client/operator's hands should never enter the red danger area.

3.05.2.4 Turn off the machine and unplug when making adjustments.

3.05.2.5 Turn off machine and unplug if a malfunction occurs.

3.05.2.6 Do not attempt to stop the blade after the saw has been turned off by jamming wood or any material into the blade.

3.05.2.7 Do not leave the saw unattended while plugged in or running.

3.05.2.8 Make certain that all cutting is planned before starting the operation.

3.05.3 Post-Operation

3.05.3.1 Unplug saw.
3.05.3.2 Remove all materials used during the operation to proper storage.

3.06 Task Analysis: Cutting Small Boards with a Jig (Trainer instructions follow each element in the task analysis).

3.06.1 Set Up (Trainers are to insure that these sequential steps are carried out with a maximum of client participation).

3.06.1.1 Miter gauge/jig is in place on saw plate.
3.06.1.2 Raw materials are located within saw area.

3.06.2 Operation Sequence* (Trainers are to insure that these sequential steps are followed by the client. Sub-steps may be developed as required).

3.06.2.1 Client/operator turns on saw.
3.06.2.2 Client/operator lines the end of the miter gauge/jig.
3.06.2.3 Client/operator loads and aligns stock to be cut into the jig.
3.06.2.4 Client/operator grasps the stick to be cut with left hand and the miter gauge with right hand and pushes forward to make the cut. A push stick will be used when performing cuts that require the client/operator's left hand to enter the red danger area.
3.06.2.5 Client/operator slides miter gauge/jig back to original position still holding on to the remaining stock.
3.06.2.6 Client/operator removes the remaining stock from the miter gauge/jig and turns off saw.

3.06.3 Training Sequence (Trainers are to use these sequential steps as guidelines for training the above steps).

3.06.3.01 Trainer aids the client in turning on the saw using manual (hand to hand) guidance.
3.06.3.02 Trainer aids the client in lining the end of the miter gauge/jig closest to the swivel with the forward edge of the saw plate using manual guidance.
3.06.3.03 Trainer aids the client in loading and aligning the stock to be cut with left hand and the miter gauge with right hand using manual guidance.
3.06.3.04 Trainer aids the client in pushing stock forward to make cut using manual guidance avoiding red danger area.
3.06.3.05 Trainer aids the client in using the push stick to remove stock from the red danger area when necessary using manual guidance.
3.06.3.06 Trainer aids the client in sliding miter gauge/jig back to original position while still holding stock using manual guidance.
3.06.3.07 Trainer aids the client in removing stock from the miter/jig using manual guidance.
3.06.3.08 Trainer aids the client in turning off saw using manual guidance.
3.06.3.09 Upon the clients' gaining control of the basic table saw operation, the trainer fades manual guidance in favor of verbal or gestural guidance, and repeats above steps as necessary.

3.06.3.10 Trainer observes a client demonstration of a safe and efficient cut using the necessary degree of guidance (manual, verbal, or gestural), correcting client mistakes as they occur until the above steps are mastered and criterion is achieved.

*These sequences are written for right hand dominant individuals. For the left handed, the procedures need to be reversed as appropriate. Some adjustments of table and jig may also be required.

3.06.4 Criteria for Certification (Trainers are to document client skills through the use of these criteria by observing on the job performance).

3.06.4.1 Client will perform each step consecutively and without error 40 times for 5 consecutive training sessions to attain initial certification for this specific operation.

3.06.4.2 Client will perform each step consecutively and without error 40 times one week after initial certification to attain intermediate certification for this specific operation.

3.06.4.3 Client will perform each step consecutively and without error 40 times one month after intermediate certification to attain full certification for this specific operation.

3.06.4.4 Client must attain full certification on each of the two Specific Operations to attain Full Operator Status for the Table Saw. Client must attain Full Operator Status on each of the 3 saws to attain full certification on the power saw component.

3.06.4.5 Client must display knowledge of safety rules by answering all questions of the Power Saw Safety Training Questionaire correctly to attain full certification on the power saw component.

3.07 Task Analysis: Ripping (Trainer instructions follow each element in the task analysis).

3.07.1 Set Up (Trainers are to insure that these sequential steps are carried out with a maximum of client participation).

3.07.1.1 Raw materials are located within saw area.

3.07.2 Operation Sequence (Trainers are to insure that these sequential steps are followed by the client. Sub-steps may be developed as required).

3.07.2.1 Client/operator turns on saw.

3.07.2.2 Client/operator places stock on the saw plate/table against the fence.

3.07.2.3 Client/operator grasps the stock and feeds it into the saw while keeping it flush against the fence. The client/operator will use a push stick to continue and complete the cut when the stock is entirely within the red danger area.

3.07.2.4 Client/operator shifts to opposite side of the saw plate/table to retrieve the cut stock and turns off saw.

3.07.3 Training Sequence (Trainers are to use these sequential steps as guidelines for training the above steps).

3.07.3.1 Trainer aids the client in turning on the saw using manual (hand to hand) guidance.

3.07.3.2 Trainer aids the client in placing stock on the saw plate/table against the fence using manual guidance.

3.07.3.3 Trainer aids the client in feeding the stock into the saw while keeping it flush against the fence and avoiding the red danger area using manual guidance.

3.07.3.4 Trainer aids the client in using a push stick to complete the cut when stock is entirely in the red danger area using manual guidance.

3.07.3.5 Trainer aids the client in shifting to the opposite side of the saw plate/table to retrive the cut stock using manual guidance.

3.07.3.6 Trainer aids the client in turning off saw using manual guidance.

3.07.3.7 Upon the clients' gaining control of the basic table saw operation, the trainer fades manual guidance in favor of verbal or gestural guidance, and repeats above steps as necessary.

3.07.3.8 Trainer observes a client demonstration of a safe and efficient cut using the necessary degree of guidance (manual, verbal, or gestural), correcting mistakes as they occur until the above steps are mastered and criterion is achieved.

3.07.4 Criteria for Certification (Trainers are to document client skills through the use of these criteria by observing on the job performance).

3.07.4.1 Client will perform each step consecutively and without error 40 times for 5 consecutive training sessions to attain initial certification for this specific operation.

3.07.4.2 Client will perform each step consecutively and without error 40 times one week after initial certification to attain intermediate certification for this specific operation.

3.07.4.3 Client will perform each step consecutively and without error 40 times one month after intermediate certification to attain full certification for this specific operation.

3.07.4.4 Client must attain full certification on each of the two Specific Operations to attain Full Operator Status for the Table Saw. Client must attain Full Operator Status on each of the 3 saws to attain full certification on the power saw component.

3.07.4.5 Client must display knowledge of safety rules by answering all questions of the Woodshop Safety Training Questionaire correctly to attain full certification on the power saw component.

3.08 Operational Safety Sequence for Band Saw (Trainers are to insure that these sequential guidelines are met with a maximum of client participation).

3.08.1 Pre-Operation

3.08.1.1 Saw is sitting level and stable on the floor.

3.08.1.2 Band wheel covers and other shrouds are in place.

3.08.1.3 The blade is properly adjusted, there are no visible cracks or deformities.

3.08.1.4 The blade guard is in place and adjusted to 1/4" above wood to be cut.

Appendix B

The importance of accurate data collection regarding the potential, baseline assessment, and progress of a client has already been discussed in Chapter III, Demonstration of Skills, in this manual. The examples of data collection that are included in this appendix may be adapted to many training situations. Baseline assessments need to be taken in order to direct the trainer to the areas that need intense concentration. Progress reports may be made in order to have an observational periodic account of the overall adjustment, advancement, and work record of the client. Operational training observations provide specific data that records and tracks a client's progress on tasks, as well as being used for evaluation sheets at the time of certification. Certification reports provide an account of actual skills that the client has acquired. Together, this documentation supports the clients' claims that they have demonstrated skill acquisition in the areas of training they were involved in.

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TESTING AND CERTIFICATION

The purpose of the following testing and certification is to aid the trainer in objectively recording client progress and documenting the attainment of specific skills by the client. An explanatory word concerning each of the three forms to be presented will perhaps be helpful.

The "operation training form" is designed to be used in conjunction with the specific operation sequence included in the various task analyses. A baseline should be taken to insure that the client will not be trained in skills already possessed and also to document progress in skills not yet possessed. For each step trained thereafter, the following codes may be helpful: "M" - client completed step with manual guidance, "V" - client completed step with verbal guidance, "G" - client completed step with gestural guidance, "I" - client completed step independently, "O" - client did not complete step. Each trial at training a step should be recorded with the appropriate letter, the goal being an "I" for all steps. Once this goal is attained, the trainer may proceed to certify the client on the operation by fulfilling the appropriate criteria for certification using the same form.

The "safety training form" is designed to be used in conjunction with the general safety training questionaire and overall trainer observation of client safety behavior. The clients' score on the safety questionaire may be recorded on the form in terms of percentage of correct responses, the goal being 100% correct. Adjustments in the questionaire may be required in order to reach clients with varying levels of communication skills. In this regard, it is the understanding of safety rules as exhibited in behavior that are of most importance. For this reason, the forms leave room for recording observations of the safety oriented behavior of the client or lapses in such behavior. The totality of safety oriented behavior should be considered along with the score on the appropriate safety questionaire before giving safety certification to a client.

The "certification form" is designed to document the attainment of certain specific skills by the client. Before certifying a client, all possible care should be exercised to insure that the client possesses the specific skills recorded. Among other possible uses, this form may facilitate placing a client in a more advanced work setting.

It is realized that forms tend to become an end in themselves rather than a means to an end. What follows are only suggested tools for documentation to be enlarged, amended, or rejected, in part or whole, as dictated by the training context and the needs of the individuals themselves.

OPERATION TRAINING OBSERVATION

Client: _____

Operator: _____

Training Status: _____

Date: _____

Observer: _____

Step	Trials

Codes: M - Client completed step with manual guidance
V - Client completed step with verbal guidance
G - Client completed step with gestural guidance
I - Client completed step independently
O - Client did not complete step

SAFETY TRAINING OBSERVATION

Client _____

Operation _____

Observer _____

Date _____

POWER EQUIPMENT CERTIFICATION

Client: _____ Date: _____

The client named above successfully completed the occupational skills training components indicated below. This client has also demonstrated the ability to use the specific pieces of power equipment as indicated.

Janitorial Component

Power Buffer _____
Vacuum Cleaner _____
Safety Skills _____

Landscaping Component

Lawn Mower _____
Power Edger _____
Lawn Vacuum _____
Weed Eater _____
Safety Skills _____

Power Saw Component

Radial Arm Saw _____
Table Saw _____
Band Saw _____
Safety Skills _____

Wood Assembly Component

Drill Press _____
Power Stapler _____
Power Sander _____
Safety Skills _____

Please note: The client has full certification on a component only if he has all items checked under said component. The safety skills certification is gained in each case scoring 100% on the appropriate safety questionaire, coupled with trainer observation of client safety behavior. The client is certified only for those machines checked above and is not to operate other machines without individual supervision.

Signed: _____

_____

_____

Appendix C

It is not our intention to reprint every law and regulation governing the employment of the handicapped. However, some of the major laws and regulations regarding wages and working conditions as they pertain to handicapped workers are: The Fair Labor Standards Act (FLSA), The Walsh-Healey Public Contracts Act (PCA), The Service Contracts Act (SCA), The Contract Work and Safety Standards Act (CWHSSA), Regulations, 29 CFR Part 524, 29 CFR Part 525, and 29 CFR Part 529. A synopsis of these laws and regulations may be found in A Guide to Sheltered Workshop Certificates, published by the U.S. Department of Labor, Employment Standards Administration, Wage and Hour Division. This pamphlet may be obtained from the Materials Development Center, University of Wisconsin - Stout, along with an audio/slide presentation. Further information regarding various laws and the handicapped may be found in "Amicus", published by the National Center for Law and the Handicapped, Inc., University of Notre Dame. Specific information regarding vocational rehabilitation and sheltered workshops may be found in "Amicus", Vol. 4 Nos, 5 and 6, September - December 1979.

We strongly recommend that any sheltered workshop or facility employing handicapped workers obtain a copy of the Handicapped Requirements Handbook published by the Federal Programs Advisory Service. This handbook covers all parts of Sections 502, 503, and 504 of the Rehabilitation Act of 1973 as well as other laws and standards concerned with handicapped individuals' rights. The Federal Programs Advisory Service updates the handbook monthly, which enables recipients to maintain a current listing

of all requirements pertaining to the handicapped.

It is essential that placement personnel be well versed in the laws and regulations regarding the handicapped. This information should be used not only to protect the rights of the handicapped workers they serve, but also to assist in presenting a variety of employment opportunities to those workers. Equally important is the fact that these laws discuss protections for the private employer as well, which may be used as incentives to persuade employers to hire the handicapped. Together the publications listed above will enable sheltered workshops and private employers to maintain safe and adequate working conditions and protect the rights of the handicapped individuals they employ.

*A Guide to Sheltered Workshop Certification, U.S. Department of Labor, Employment Standards Administration Wage and Hour Division, WH/Publication 1345, (Revised January 1978), "Introduction to Sheltered Workshop Certificates", soumd/slide presentation, Materials Development Center, University of Wisconsin - Stout, Stout Vocational Rehabilitation Institute, Menomonie, Wisconsin 54751.

*"AMICUS", National Center for Law & the Handicapped, Vol. 4, No. 5&6, September - Decenber, 1979, (University of Notre Dame, Notre Dame).

*Handicapped Requirements Handbook, may be obtained by writing the Federal Programs Advisory Service, 2120 L Street N.W. Suite 210, Washington, D C , 20037.

A Guide to Sheltered Workshop Certification

U.S. Department of Labor
Employment Standards Administration
Wage and Hour Division

WH Publication 1345
(Revised January 1978)

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MATERIALS DEVELOPMENT CENTER

Guide to Sheltered Workshop Certification

A sheltered workshop certificate is necessary to employ handicapped workers (clients) of a sheltered workshop at less than the minimum wage under the Fair Labor Standards Act, Walsh-Healey Public Contracts Act, or Service Contract Act. Regulations, 29 CFR Part 525, govern the issuance of sheltered workshop certificates.

Applicable laws and their coverage

The *Fair Labor Standards Act* (FLSA) in general applies to employees engaged in interstate commerce or the production of goods for interstate commerce and to employees in certain enterprises. Typical workshop activities which are generally of interstate character include: Subcontract work; making of new goods (prime manufacturing); collection of used materials from households, primary sorting of such material, and handling, baling, or transporting of the salvage; and office work. Other activities may also come under the law. In general, the FLSA applies both to clients and staff who directly or indirectly perform work covered by the law.

The *Walsh-Healey Public Contracts Act* (PCA) in general applies to Federal government supply contracts which may be in excess of $10,000. This law applies to employees who help manufacture, handle, assemble, or ship items called for by the contract. It does not apply to executive, administrative, or professional employees, office workers and certain custodial employees.

The *Service Contract Act* (SCA) in general applies to Federal government service contracts regardless of the amount of the contract. This law applies to all employees engaged in working on or in connection with the contract, either in performing the services called for or in performing other necessary duties.

Labor provisions of the laws

Minimum wages

Under the FLSA Amendments of 1977, the minimum wage applicable to covered employees of all workshops is $2.65 an hour effective January 1, 1978, $2.90 an hour effective January 1, 1979, $3.10 an hour effective January 1, 1980, and $3.35 an hour effective January 1, 1981. Questions concerning the proper minimum wages applicable in a specific situation should be directed to the Wage and Hour Division's Regional Office in your area.

Under the PCA, the prevailing minimum wage is determined by the Secretary of Labor on an industry basis. No rates are below the FLSA minimum wage, while some are higher.

Under SCA, the FLSA minimum wage applies for contracts of $2,500 and under. For contracts in excess of $2,500, a higher minimum wage, as well as fringe benefits, may be determined by the Secretary of Labor in accordance with prevailing rates in the locality by classification of service employee. The FLSA requires that *all* employees in an establishment with an SCA contract be paid at least the FLSA minimum wage. Clients may be paid in accordance with the applicable terms of the certificate held by the workshop.

Overtime pay

All overtime hours worked in the workweek must be paid for at not less than one and one-half times the regular rate of pay.

Under FLSA, workers in workshops must be paid overtime for all hours over 40 worked in the workweek.

PCA requires overtime pay for all time worked over 8 hours a day or 40 hours a workweek, whichever results in the greater number of overtime hours.

In connection with work performed under SCA, overtime pay may be required by FLSA or the Contract Work Hours and Safety Standards Act (CWHSSA). The latter Act requires overtime pay for all time worked over 8 hours a day or 40 hours a workweek, whichever results in the greater number of overtime hours.

The regular rate of pay includes all earnings, makeup payments, production bonuses, and facilities such as room and board the workshop furnishes its clients. A client's regular rate of pay may be more than the applicable certificate rate, but it cannot be less. Each worker paid at piece rates must be paid his full piece-rate earnings when such earnings are more than the minimum wage rate set in the certificate. A piece-rate worker should be paid makeup if his piece-rate earnings are less than the applicable certificate rate. For example, piece-rate earnings in a workweek total $60 for 40 hours of work under the applicable certificate rate of $1.75 an hour. The makeup pay for the workweek would be $10: $1.75 (certificate rate) multiplied by 40 (hours worked) less $60 (piece-rate earnings) equal $10 (makeup pay).

Child labor

Under FLSA 16 is the minimum age for most jobs; 18 for certain hazardous occupations; 14 and 15 year olds may work outside school hours in certain nonmanufacturing, nonmining jobs for limited hours. These provisions are explained in Child Labor Bulletin No. 101. Minors under 16 may not be employed in covered work under PCA. SCA has no child labor provisions.

Safety and health

PCA, SCA, and CWHSSA have safety and health provisions; FLSA has none. The Occupational Safety and Health Act (OSHA) is applicable to all private employment in any workplace. Details on OSHA may be obtained from the Occupational Safety and Health Administration's Regional Offices in Boston, New York, Philadelphia, Atlanta, Chicago, Kansas City, Dallas, Denver, San Francisco, and Seattle.

Equal pay

Employers, including workshops, may not pay employees of one sex wages at rates lower than paid employees of the opposite sex, employed in the same establishment, for equal work on jobs requiring equal skill, effort and responsibility, which are performed under similar working conditions.

Age discrimination

The Age Discrimination in Employment Act prohibits private employers, including workshops, who employ 20 or more workers, and also public employers (Federal, State, or local governmental units) from arbitrarily discriminating against any individual between the ages of 40 and 65 as to compensation, terms, conditions, or privileges of employment because of age.

Sheltered workshop certification

Five types of certificates authorizing subminimum wages are available for clients employed in sheltered workshops: Regular program, work activities center (WAC), evaluation, training, and individual rate. A workshop may qualify for all five types of certificates. The same certificate covers work performed under FLSA, PCA and SCA, except for SCA contracts in excess of $2,500.

If an SCA contract is greater than $2,500, the workshop should contact the Wage and Hour Division's Regional Office and supply the following information in addition to that called for by the application(s): Name of the prime contractor, contract number, award and expiration dates, amount of the contract, applicable SCA wage determination (including fringe benefits), type of service to be performed, and governmental agency (and its location) for which the service will be performed.

Nonhandicapped and handicapped nonclient employees of sheltered workshops doing covered work are required to be paid at least the applicable minimum wage for all work performed, and overtime for all overtime hours. A handicapped nonclient employee (Regulations, 29 CFR Part 525.11) with limited productivity may qualify for a subminimum wage certificate under the regulations governing the employment of handicapped workers in competitive industry (29 CFR Part 524).

Generally, certificates are issued for one year and are renewable upon application. For newly established workshops which have no experience, short-term certificates may be issued to allow the workshop time to accumulate the required information, including client-earnings data. When applying for a renewal of an initial short-term certificate, the workshop should complete forms WH-226 and WH-227. If information is not available for a full period as requested by these forms, data available should be furnished. The period to which the data applies should be shown in the form, e.g., January 13 through June 30, 1978.

A workshop is required to pay all workers in covered work at least the applicable minimum wage until a certificate is issued. Certificates are not issued retroactively.

Definitions

The definition of a sheltered workshop includes all types of nonprofit agencies having work programs that assist in the rehabilitation or employment of handicapped persons, including programs for the homebound handicapped. Only a nonprofit organization may qualify for a sheltered workshop certificate. Employment of handicapped workers (other than patient workers) at subminimum wages in profit-oriented organizations is governed by Regulations, 29 CFR Part 524. Employment of patient workers at subminimum wages in residential care facilities, public or private, is governed by Regulations, 29 CFR Part 529.

A *handicapped worker (client)* is an individual whose earning capacity is impaired by old age (65 years, or older, provided ability to perform the duties of the job, equivalent in quality and quantity to that of an average nonhandicapped employee in the same establishment, or in the vicinity, has been impaired as a result of age) or mental or physical disability or injury. Alcoholics and drug addicts come within this definition but the following, among others, do not (unless their earning capacity is impaired by old age, as defined above, or mental or physical disability or injury): Vocationally, socially, culturally or educationally handicapped; chronically unemployed; welfare recipients; school dropouts; juvenile delinquents; parolees; conscientious objectors; etc.

Individuals who volunteer their time to a sheltered workshop and who do not expect any compensation are not regarded as employees within the meaning of the Act. On the other hand, workers who are said to volunteer part of their time and who receive some form of compensation for the remaining time worked are not regarded as bona fide volunteers and must be paid not less than the applicable minimum wage, and overtime where applicable, for all hours worked.

A *regular program* is a workshop program other than a work activities center program or evaluation or training program. The minimum wage set in the certificate (referred to, variously, as shop rate, floor rate, floor wage, etc.), which may not be less than 50 percent of the applicable minimum wage, applies to all covered clients in the program other than those qualifying for a learner or individual minimum wage. The certificate may provide for one minimum wage applicable to the entire shop, or different minimums for different departments if more than one type of work is performed. It may also provide a *learning rate*, a minimum wage

lower than the applicable workshop or department rate but not less than 50 percent of the applicable minimum wage.

A learning rate may apply during specified learning period(s). When authorized, these may apply: (a) To a client who has never previously worked in the workshop, during an initial break-in period; (b) to a client transferred to a skilled or semiskilled job in the workshop at which he has never previously worked; or (c) to a client who has returned to the workshop after such period of separation as would require relearning.

Evaluation or training programs are required to meet the criteria in section 525.7(b) of the regulations to be eligible for a certificate. If the evaluees or trainees are to be paid less than 50 percent of the applicable minimum wage, the program must receive prior authorization by the State vocational rehabilitation agency that the program(s) meet that agency's standards, or substantially equivalent standards, for such programs.

An *individual rate* is a minimum wage for a particular individual which is less than the regular program minimum wage. On an individual rate below 50 percent of the applicable minimum wage, the application must have prior State agency certification that the individual's earning capacity is so severely impaired that he is unable to engage in competitive employment. In no case may an individual rate be less than 25 percent of the applicable minimum wage.

In order to qualify as a *work activities center (WAC)*, among other requirements, the clients' physical or mental impairment must be "so severe as to make their productive capacity inconsequential." The test of inconsequential productivity for all clients (covered and noncovered) as a group is that average productivity per client (annual earned income of WAC, less cost of purchased materials used, divided by average number of clients) is less than $1,400 a year effective January 1, 1978, $1,550 effective January 1, 1979, $1,650 effective January 1, 1980, and $1,775 effective January 1, 1981. An alternate means of meeting the WAC test is available for a workshop that pays piece rates to more than 50 percent of the WAC clients. Under this test, the average annual wage (total annual wages of clients divided by average number of clients) per WAC client must be less than $1,000 a year effective January 1, 1978, $1,100 effective January 1, 1979, $1,175 effective January 1, 1980, and $1,275 effective January 1, 1981.

An entire facility or a department of a facility may qualify as a WAC. In the latter case (dual program), the WAC must be physically separated from the other programs, such as regular program or certificated evaluation or training programs, and have separate supervision and records.

Any clients whose productivity substantially exceeds the average for determining qualification of a workshop as a work activities center may not be employed under a WAC certificate. Substantial production for this purpose is considered to be client earnings which regularly are 50 percent of the applicable minimum wage or more over a recent consecutive 3-month period. A few such clients in a WAC may be issued subminimum wage certificates under regulations governing employment of handicapped workers in competitive industry (29 CFR Part 524), if no other suitable employment opportunities are available to them. The production, earnings and number of clients certificated under Regulations, 29 CFR Part 524, shall be included in the calculations to determine whether the shop as a whole meets the WAC tests for certification. Information on how to apply for certificates under Regulations, 29 CFR Part 524, may be obtained from the Wage and Hour Division's Regional Office.

Wage requirements under certificates

The FLSA under section 14(c) provides for: (1) Payment of commensurate wages, and (2) a floor wage (certificate rate) not less than 50 percent of the minimum wage, with a few exceptions.

Commensurate wages

Subminimum wages to handicapped workers must be commensurate with those paid nonhandicapped workers in industry in the vicinity for essentially the same type, quality, and quantity of work. All clients employed at subminimum wages under any type of sheltered workshop certificate must be paid in accordance with this provision without exception, but not less than the certificate rate if one applies. Methods of assuring the payment of commensurate wages are discussed in the following two paragraphs for clients paid at piece rates and at hourly rates, respectively.

Clients paid at piece rates are required to be paid not less than the prevailing piece rates paid nonhandicapped workers in industry in the vicinity for the same type of work. If such piece rates are unavailable, a time study should be made based on the production of average nonhandicapped individuals (normal productivity), the prevailing industry wage rates, and a 50-minute hour (allowing 10 minutes for personal time and fatigue). (Further information about making time studies may be obtained from the Wage and Hour Division's Regional Office.)

The performance of each client paid at hourly rates must be related to: (1) The performance which would be expected of an average nonhandicapped worker if he were doing the client's job; and (2) the prevailing wage in industry in the vicinity for similar work or work requiring comparable skill. For example, if a client's performance is about 60 percent of normal productivity and the prevailing industry wage is $4 an hour, the client's wage should not be less than $2.40 an hour (.60 times $4 equals $2.40). (It is very helpful to have written job descriptions of the performance that would be expected of the nonhandicapped workers for use as yardsticks in evaluation of the client's performance.)

Floor wage (certificate rate)

The floor wage is the minimum wage guaranteed by the certificate to be paid to clients working in a workshop. The wage floor of at least 50 percent applies to all clients except those employed under WAC, evaluation, training, or individual-rate certificates. Individual-rate certificates may not be less than 25 percent of the minimum wage. WAC, evaluation, and training certificates set no wage floor. However, commensurate pay as explained above is required under these certificates.

WAC certificates and all certificates authorizing wages of not less than 50 percent of the applicable minimum wage require authorization by the Wage and Hour Division only. All certificates authorizing wages below 50 percent of the applicable minimum wage, except WAC, must have authorization both by the Wage and Hour Division and the State vocational rehabilitation agency or the State Commission for the Blind (in those States which have such a Commission).

Recordkeeping

Workshops are required to keep records as set out in the Recordkeeping Regulations, 29 CFR Part 516, and section 525.13 of the Sheltered Workshop Regulations, 29 CFR Part 525.

Clients' wages should be reviewed regularly and adjusted to reflect individual productivity and changes in prevailing industry wages. The records required to be maintained by the workshop include, among other things, reports showing productivity of individual clients on a continuing basis (piece rates) or at least every 6 months (hourly rates); the prevailing wage findings for all types of *covered* work performed by the clients; and the pricing of work.

Production records for clients paid at piece rates must show: The productivity of the client; expected productivity of an average nonhandicapped worker; and the piece rate paid in competitive industry or the expected earnings of an average nonhandicapped worker for the production shown. Records of time studies made to establish piece rates must be kept.

Production records for clients paid at hourly rates must show: The performance expected of an average nonhandicapped worker for the type of work being done by the client; the quantity and quality of the client's production in relation to that expected of a nonhandicapped worker; and the prevailing wage in industry for similar work or work requiring similar skill.

The records of prevailing industry wage findings must show the date and source of such findings, and, if obtained from industry, should specify the name and city of the firm, or, if from the State Employment Service office, the name of the person and address of the office.

Pricing of work records are required to show: That part of the unit price allocated to direct labor (labor rate); the productivity expected of an average nonhandicapped worker in that type of work; and the prevailing industry wage. Records of time studies made in connection with establishing prices must be kept.

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Filing of Applications. Applications for the various types of certificates shall be filed as follows:

Type of program or certificate	*Form(s) to be used*	*Number of copies to be filed with Wage and Hour Division*	*Number of copies to be filed with State vocational rehabilitation agency*
1. Newly established workshop (regular program or WAC)	WH-373	Two	None
2. Established regular program	WH-226 & WH-227	Two	None
3. Established WAC	WH-226 & WH-227	Two	None
4. Evaluation and/or training program (rate requested *less than 50 percent* of applicable minimum wage)	WH-247 (single form may be used for all such programs)	One (with attachments)	Two (with two copies of all attachments)
5. Evaluation and/or training program (rate requested *50 percent or more* of applicable minimum wage)	WH-247 (single form may be used for all such programs)	Two (with two copies of all attachments)	None
6. Individual rate—original application or when directed (rate requested *less than 50 percent* of applicable minimum wage)	WH-249	One (with attachments)	Two (with two copies of all attachments)
7. Individual rate—original application or when directed (rate requested *50 percent or more* of applicable minimum wage)	WH-249	Two (with two copies of all attachments)	None
8. Individual rate—renewal application (unless otherwise directed)	WH-227 (included with information supplied when filing for regular program certificate)	None in addition to copies filed under item 2 above	None

Note: *Branch or satellite:* When applying for a certificate for a *newly formed branch or satellite*, a separate form WH-373 should be completed for each such newly formed branch or satellite. (See item 1 above.)

When applying for renewal certificate for such branch or satellite at the same time as for the main establishment, only one form WH-226 need be completed for main establishment and all branches or satellites. A separate form WH-227, however, must be completed for each location at which the workshop does covered work. Forms WH-247 and WH-249 should clearly indicate to which location(s) they are applicable.

Appendix D

A profile of the perspective employee should be developed by the placement person in order to formulate as complete a picture as possible about the employee. The profile should include such information as work history, work abilities, evaluation records, desired goals, specific needs and considerations, as well as some information regarding work behaviors and general social behaviors. Included in this appendix are some examples of profile sheets. These may be used as they are, or adapted to suit the particular needs of the client and placement situation.

*Effective Report Writing in Vocational Evaluation and Work Adjustment Programs; Materials Development Center, Deparment of Rehabilitation and Manpower Services, School of Education, University of Wisconsin - Stout, Menomonie, Wisconsin 54751, 1974.

MATERIALS
DEVELOPMENT
CENTER

Department of Rehabilitation
and
Manpower Services

School of Education
University of Wisconsin - Stout
Menomonie, Wisconsin 54751

EFFECTIVE REPORT WRITING

in
Vocational Evaluation
and
Work Adjustment
Programs

The Materials Development Center is supported in part by a Research and Demonstration Grant (12-P-55307/5) from the Rehabilitation Services Administration Department of Health, Education, and Welfare, Washington, D.C.

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MATERIALS DEVELOPMENT CENTER

Trainee Profile and Evaluation Summary,
Exceptional Children's Foundation,
Los Angeles, California

The following report format was developed by the Exceptional Children's Foundation for use in the PAR Workshops Project (RD-1561-G) in the Los Angeles, California, suburban area. The format utilizes a variety of techniques, and yet is still just three pages in length. The form includes a work behavior rating scale, information and ratings on specific work tasks, and a narrative comments and recommendations section. The format appears to incorporate a maximum amount of information into a minimum amount of space. The work behavior rating scale is a compact version of an expanded scale which is used by the workshop supervisor or instructor to make the initial ratings. The expanded scale also includes comments about the client's work behaviors. The client is also rated according to a five-level employability scale which includes the following: I - Ready for Employment; II - Potentially Employable; III - Employable at Sheltered Level Only; IV - Marginally Productive; V - Non-productive.

Shushan, Robert D. Coordination of Workshops for the Mentally Retarded in a Metropolitan and Suburban Area. Los Angeles: Exceptional Children's Foundation, 1972.

APPENDIX H11

E. TRAINEE PROFILE AND EVALUATION SUMMARY
Work Behavior Rating*

Trainee _____ Workshop _____ Report Period _____

Counselor _____ Program _____ Type of Report _____

Dates Absent _____ Shop Notified _____

Reasons Absent _____

No. Hours Present _____ Total earnings during report period _____

Rater(s) _____

Work Behavior Rating Scale

	F	D		C			B		A	
	1	2	3	4	5	6	7	8	9	Score
1. Co-Worker Relations										
2. Disruptiveness										
3. Tolerance for Criticism										
4. Independence from Supervision										
5. Cooperation with Supervisor										
6. Understanding Oral Instructions										
7. Memory for Instructions										
8. Motivation for Work										
9. Concentration Ability										
10. Punctuality										
11. Quality of Work										
12. Quantity of Work										
13. Safety Awareness and Habits										

Placeability Level _____

Total _____

Criteria for Grades:

A Excellent – Performance meets usual competitive standards in unskilled and semi-skilled employment.

B Good – Above average workshop performance but does not fully meet competitive standards in unskilled and semi-skilled employment.

C Fair – Falls in average performance range of workshop trainees. Although within acceptable limits of the workshop, considerable improvement required to attain competitive standards.

D Poor – Below average performance. Improvement needed to meet workshop standards.

F Extremely Inappropriate – Behavior requires special supervisory or professional staff attention. May require services beyond the scope of a workshop training program such as intensive psycho-therapy, medical treatment, activity or day care center.

*NOTE: In addition to this page, the actual summary also included second and third pages that were identical to Appendices H8, H9

(End Form)

Evaluation and Training Center,
Department of Rehabilitation and Manpower Services,
University of Wisconsin - Stout

The impact of vocational evaluation services is highly dependent on communication of the results of these services in the most effective manner possible. For this reason, the graduate training program in vocational evaluation at the University of Wisconsin - Stout places considerable emphasis on the development of good communication skills in graduate-trained vocational evaluators. The format currently used in preparing the narrative evaluation report consists of a broad, topical outline. Recommendations and objectives are presented in the initial sections of the report, in contrast to their location in many other formats. There are certain advantages in placing this most important section in this particular position in the format. Detailed test scores and work sample information are added in an appendix sheet.

Graduate students are furnished with a "Form and Style Guide" which includes principles of writing style and examples for content in using the report format. The format used in the graduate program at Stout is continually being revised in order to develop an improved evaluation report.

Materials and information provided by Tony Langton, M.S., and Leon Romatowski, M.S., Department of Rehabilitation and Manpower Services, University of Wisconsin - Stout.

Department of Rehabilitation and Manpower Services
Evaluation and Training Center
University of Wisconsin - Stout
Menomonie, Wisconsin

Vocational Evaluation Report
Outline

Date: _____ Name: _____

Referred by: _____ Address: _____

_____

Evaluation Period: _____ Sex: _____ Age: _____

Evaluator: _____ Birthdate: _____

_____

Section I : Referral Reason

Section II : General Description

A. Initial Impressions

B. Physical Appearance

C. Special Characteristics

D. Vocational History

Section III: Recommendations

A. Immediate

B. Long Term

Section IV : Performance

A. Work Sample Skills

B. Special Assessment

C. Performance Related Psychometric Tests

D. Physical Capacities

E. Discussion of Significant Performance

Vocational Evaluation Report
Outline (cont.)

Section V : Behavior

A. Temperments

B. Interests/Needs

C. Personality/Social

D. Discussions of Significant Behavior

Appendix E

This appendix contains excerpts from the Personal Social Adjustment Training Curricula Manual. It is a complete curriculum for training handicapped clients in personal and social behaviors that are expected of the employee. This type of training is extremely important. If the client does not already possess these behaviors, then the availability of this training will increase his chance for success in maintaing competitive employment. The index from the manual is included so that you can see the many types of behaviors and social training that is covered.

*Behavioral Training examples are reproduced from, Personal Social Adjustment Training Curricula Manual; Stephen Drury, Olivia Shellhaas, 1976, written for the Vocational Rehabilitation Department of the Austin State School.

Introduction

This Personal and Social Adjustment Training Manual is designed for adolescent and adult moderately retarded clients, though adaptations may be made for other client groups. Research and follow-up of vocational clients indicate that barriers to successful employment are often emotionally and behaviorally based. For this reason, the personal and social adjustment training goals are:

1. To assist the client in finding self expression in socially acceptable ways.
2. To assist the client in developing or restoring confidence in himself and others.
3. To assist the client in gaining insight into his motivations and behaviors so that self control and a sense of responsibility will develop.
4. To assist the client in establishing a realistic level of aspiration through insight into attitudes, feelings, emotions and other related elements of behavioral dynamics.
5. To provide a program of normalization through exposure to socially accepted standards.
6. To provide some basic information for community adjustment.

Personal and social adjustment is a continuous learning process in which the individual develops a satisfactory concept of "self" in relation to the situations life presents.

To meet the goals stated above, the curricula are divided into four major sections:

I. Grooming and Health
II. Social Adjustment
III. Basic Education
IV. Using Community Resources

Pretest and Evaluation Forms precede the sub-sections of the manual. They can be utilized to establish baseline functioning and to record progress. The curricula, though not exhaustive, are comprehensive, and have been compiled from many sources. The curricula will provide a viable means for reaching the goals of "personal and social adjustment" if instructors refine lesson plans as they are utilized.

This manual has been designed for use at Austin State School and the Central Texas Area. Therefore, the educational resourses, audio-visual equipment, and materials will be convenient to this geographic location. Similiar resourses, equipment and materials, however, can be obtained through the parallel agencies and organizations in your geographic area. For additional information related to the curricula and various resources, you may contact Austin State School, Vocational Rehabilitation Department, P.O. Box 1269, Austin, Texas 78767.

Vocational Adjustment: Pretest and Evaluation

	Pre-test	1st week Evaluation	2nd week Evaluation	3rd week Evaluation
1. Client will secure a Social Security Card from Social Security Office (field trip).				
2. Client will name two of his own skills.				
3. Client will name two places to go for assistance in getting a job.				
4. Client will role play an appropriate job interview.				
5. Client will fill out job application.				
6. Client will name two jobs he is interested in.				
7. Client will state what jobs require a health card.				

Discussion List: Good Work Traits

1. Accepts oral directions
2. Follows oral directions
3. Accepts constructive criticism
4. Ignores destructive criticism
5. Attends only to assigned tasks
6. Initiates tasks promptly
7. Minimizes non work-related conversation while at work
8. Completes tasks on time
9. Completes all tasks satisfactorily
10. Works well with supervision
11. Works well without supervision
12. Stays in assigned areas
13. Goes from one task to another without stopping
14. Acquires the ability to perform task after demonstration
15. Reports to work on time
16. Calls supervisor when sick or going to be late
17. Goes through proper procedures to take time off
18. Works positively after having been corrected on proper way
19. Responds positively to work supervisors' demands
20. Work rate improves with practice
21. Accepts reasonable changes in work assignment
22. Works even when problems exist
23. Accepts criticism from co-workers
24. Performs extra duties upon request
25. Works cooperatively with other workers

Job Interest: Checklist

Ask clients to put a check mark beside the jobs they think they'd like to have and to put a cross beside the ones they would not like to have. Discuss each job, if necessary.

1. _____ animal caretaker
2. _____ laundry worker
3. _____ library assistant
4. _____ mail clerk
5. _____ messenger
6. _____ cook
7. _____ nursery worker
8. _____ dishwasher
9. _____ elevator operator
10. _____ painter
11. _____ farm laborer
12. _____ porter
13. _____ food service worker
14. _____ presser
15. _____ furniture repairman
16. _____ ground maintenance worker
17. _____ stock clerk
18. _____ janitor
19. _____ vehicle maintenance worker
20. _____ warehouseman
21. _____ domestic worker
22. _____ baker
23. _____ packer
24. _____ manicurist
25. _____ usher
26. _____ upholsterer
27. _____ welder
28. _____ routeman
29. _____ assembler
30. _____ sorter

Getting A Job

Objectives:

1. Client will name two ways to locate jobs available in the community.
2. Client will role play a good interview.
3. Client will name three questions he will need answered at the interview.

Activities:

1. Instructor discusses how one can find what jobs are available in the community.
   a. Read the want ads (Demonstrate how to find a particular type of job)
   b. Ask your friends
   c. Go to the State Employment Agency
   d. Look for new businesses opening
   e. Ask your counselor
2. List do's and don'ts of interviewing (on the chalk board). Encourage clients to role play the boss or the interviewee at either a good or bad interview. (Discuss this list after writing it on the board):
   a. Dress neatly and be clean
   b. Introduce yourself
   c. Be on time
   d. Sit straight
   e. Don't fidget
   f. Look the employer in the eye when speaking and listening
   g. Answer all questions clearly and honestly
   h. Do not smoke, chew gum or eat during the interview
   i. If you have a question, ask it
   j. When interview is over, thank the interviewer
3. Discuss what facts the interviewee should be prepared to answer
   a. Name
   b. Age
   c. Address
   d. All previous work experience
   e. References (a friend or previous employer who knows you well and can tell others about you; at least three names and addresses)
   f. Family background (emphasizing the positive aspects)
   g. Job preference
4. Discuss questions the person should ask the interviewer. Elicit from clients a list to approximate the following:
   a. What kind of work will the job involve?
   b. What are the work hours, days off and work schedule?
   c. What are the age, education and experience requirements?

d. How much vacation is allowed?
e. What are the other benefits? (Ex: insurance)
f. What is the pay?
g. What are the chances for advancement?

5. Discuss what the client should expect from the following people:
   a. Employers:
      1. Regular pay for your work
      2. Supervision
      3. Impartiality
      4. Job security
      5. Acknowledgement and reward for your efforts
      6. Opportunity for advancement and further training
      7. Provision of adequate and safe work areas and equipment
      8. Provision of protective clothing
      9. Constructive criticism
      10. Respect
   b. Fellow Employees:
      1. Constructive criticism
      2. Cooperation and advice
   c. You the employee:
      1. Be at your best
      2. Learn your job
      3. Have a broad outlook
      4. Cultivate good habits
      5. Show courtesy to others
      6. Show respect to the boss
      7. If you don't understand, ask questions

Evaluation:

Observation of progress in relation to the objectives.

Classified Ads

Objective:

1. Clients will find the classified ads in the newspaper and locate the employment section.

2. Client, if he has reading ability, will locate a job he likes.

Activities:

1. Ask each student to bring in a help wanted section from the paper (or teacher can save a supply to bring).

2. Discuss with class that within the classified ads there are many parts. The part to look under for jobs is "Employment". Class can discuss what some of the other headings mean, so that they will have an overall understanding of classified ads. Next, explain there are different names for job listings: Clubs/Restaurants, General, etc. Explain what kinds of jobs can be found under each heading. The result will be a word study of: Classified ads, employment, Clubs/Restaurants, Domestic/Household, Industrial Trades, General Help

Wanted, and Part Time.

3. Discuss different kinds of jobs and ask students to find them in the "help wanted" ads.

4. Ask student to write down the name of two different kinds of jobs they would like; then have them look for at least one of the jobs in the want ads.

5. Discuss procedure to go through after a job is found in the ads.
   a. Write down job information
   b. Call business to set up interview appointment
   c. Call or go to business

Evaluation:

Progress in relation to objectives.

Use of Telephone

Objective:

Student will be able to correctly use phone when hunting for jobs or getting an interview appointment. (This could be role played)

Activities:

1. Discuss correct way to use phone when looking for jobs, giving specific examples and procedure.
   a. Speak clearly and distinctly into the mouthpiece of the telephone so the other person will understand what you are saying.
   b. Give your name when calling and state your business as briefly as possible.
   c. Say "thank you" when you have finished talking.

2. Clients can each choose an ad from the classified section and role play (with someone on the other end being secretary or employer) the correct way to call about a job. During role play, have students keep pencil and paper, so they can write the important information, such as the interviewers name and time of appointment.

Evaluation:

Observation of progress toward objective.

State Employment Commission

Objective:

Student will be able to look for a job by using State Employment Commission files.

Activities:

1. Teacher will ask students if they know what the State Employment Commission does (also what do the words State, Employment and Commission mean). Out of the discussion the following information should evolve: The State Employment Commission can help people find a job. They may give you tests to see what kind of job would be best for you. The State Employment Office keeps in close contact with many employers in town. The businesses tell them when they need a worker. After you go to the Employment office your name will be put on a card. The services that the State Employment Commission gives are free and you will be contacted if a job is available.

2. After the description of the Employment Commission is given, teacher can describe exactly what happens at the Commission.

3. Go on a field trip to the commission. When in class again, role play correct procedures.

Evaluation:

Observation of progress toward the objective.

Job Application

Objective:

Clients will fill out application form correctly.

Activities:

1. As a pre-evaluation, teacher can pass out simplified application forms to see how much knowledge students already have of applications. Teacher will then know how in depth the lesson will have to be. Teacher will also see how well words within the application are understood.

2. After students have completed forms, have discussion regarding word meanings. Continue discussion until students have a good understanding of what an application is, before you go into the procedure of filling out an application.

3. If possible use an overhead projector and transparancy of an application form to discuss each item and how it will help the employer. (Be sure to explain about social security numbers and why they are important.)

Evaluation:

Evaluate clients on completion of an application.

Sample application

APPLICATION FOR EMPLOYMENT

PERSONAL INFORMATION

DATE _____ SOCIAL SECURITY NUMBER _____

NAME _____ LAST _____ FIRST _____ MIDDLE _____ AGE _____ SEX _____

PRESENT ADDRESS _____ STREET _____ CITY _____ STATE _____

PERMANENT ADDRESS _____ STREET _____ CITY _____ STATE _____

PHONE NO. _____ OWN HOME _____ RENT _____ BOARD _____

DATE OF BIRTH _____ HEIGHT _____ WEIGHT _____ COLOR OF HAIR _____ COLOR OF EYES _____

MARRIED _____ SINGLE _____ WIDOWED _____ DIVORCED _____ SEPARATED _____

NUMBER OF CHILDREN _____ DEPENDENTS OTHER THAN WIFE OR CHILDREN _____ CITIZEN OF U. S. A. _____ YES _____ NO

IF RELATED TO ANYONE IN OUR EMPLOY, STATE NAME AND DEPARTMENT _____ REFERRED BY _____

LAST FIRST MIDDLE

EMPLOYMENT DESIRED:

POSITION _____ DATE YOU CAN START _____ SALARY DESIRED _____

ARE YOU EMPLOYED NOW? _____ IF SO MAY WE INQUIRE OF YOUR PRESENT EMPLOYER _____

EVER APPLIED TO THIS COMPANY BEFORE? _____ WHERE _____ WHEN _____

EDUCATION	NAME AND LOCATION OF SCHOOL	YEARS ATTENDED	DATE GRADUATED	SUBJECTS STUDIED
GRAMMAR SCHOOL				
HIGH SCHOOL				
COLLEGE				
TRADE, BUSINESS OR CORRESPONDENCE SCHOOL				

SUBJECTS OF SPECIAL STUDY OR RESEARCH WORK

WHAT FOREIGN LANGUAGES DO YOU SPEAK FLUENTLY? _____ READ _____ WRITE _____

U. S. MILITARY OR NAVAL SERVICE _____ RANK _____ PRESENT MEMBERSHIP IN NATIONAL GUARD OR RESERVES _____

FORMER EMPLOYERS (LIST BELOW LAST FOUR EMPLOYERS, STARTING WITH LAST ONE FIRST.)

DATE MONTH AND YEAR	NAME AND ADDRESS OF EMPLOYER	SALARY	POSITION	REASON FOR LEAVING
FROM				
TO				
FROM				
TO				
FROM				
TO				
FROM				
TO				

REFERENCES: GIVE BELOW THE NAMES OF THREE PERSONS NOT RELATED TO YOU, WHOM YOU HAVE KNOWN AT LEAST ONE YEAR.

NAME	ADDRESS	BUSINESS	YEARS ACQUAINTED
1			
2			
3			

PHYSICAL RECORD:

LIST ANY PHYSICAL DEFECTS

WERE YOU EVER INJURED? GIVE DETAILS

HAVE YOU ANY DEFECTS IN HEARING? IN VISION? IN SPEECH?

IN CASE OF EMERGENCY NOTIFY

NAME ADDRESS PHONE NO.

I AUTHORIZE INVESTIGATION OF ALL STATEMENTS CONTAINED IN THIS APPLICATION. I UNDERSTAND THAT MISREPRESENTATION OR OMISSION OF FACTS CALLED FOR IS CAUSE FOR DISMISSAL. FURTHER, I UNDERSTAND AND AGREE THAT MY EMPLOYMENT IS FOR NO DEFINITE PERIOD AND MAY, REGARDLESS OF THE DATE OF PAYMENT OF MY WAGES AND SALARY, BE TERMINATED AT ANY TIME WITHOUT ANY PREVIOUS NOTICE.

AS PART CONSIDERATION FOR MY EMPLOYMENT BY THE PIZZA INN, INC., I THE UNDERSIGNED, HEREBY AGREE TO ASSUME FULL RESPONSIBILITY FOR THE CASH REGISTER SHORTAGES, IF ANY, OCCURRING WHILE I AM ON DUTY AT A PIZZA INN AND WHEREBY CONSENT TO THE PIZZA INN, INC. WITHHOLDING FROM MY PAY ANY SUCH CASH REGISTER SHORTAGES, IF ANY, AND DO GRANT SUCH AGAINST ANY SUCH SHORTAGES, IF ANY.

I HAVE READ AND UNDERSTAND THE FOREGOING CONSENT AGREEMENT.

DATE SIGNATURE

DO NOT WRITE BELOW THIS LINE

INTERVIEWED BY DATE

REMARKS:

NEATNESS		CHARACTER	
PERSONALITY		ABILITY	

HIRED FOR DEPT. POSITION WILL REPORT SALARY WAGES

APPROVED 1. EMPLOYMENT MANAGER 2. DEPT. HEAD 3. GENERAL MANAGER

Appendix F

Appendix F deals with job analysis and job requirements. A job analysis is a useful tool for placement personnel because it outlines the various requirements of the job, the job environment, expected competencies and performance criteria. This can also be extended to include job advancement possibilities, and types of supervision. With this analysis the placement person can determine the assessibility of the job to his clients, whether the job suits his clients' expressed desires and employment goals, and if the client possesses all the required skills for employment. Included in this appendix are examples of job analysis and the procedures involved in developing a job analysis.

*Job analyses reproduced from Project PreVOC, Training for Teachers of Prevocational Programs, developed and edited by Maxine J. Lain, Project Manager, David W. Gibbs, Project Consultant, Project PreVOC, Grant funded from the U.S. Office of Education, D.H.E.W. Bureau for Education of the Handicapped, under P.L. 93-380, Title IV C, Grant #77131351, and produced at Education Service Center, Region XIII.

*Job analyses reproduced from Handbook for Analyzing Jobs, U.S. Department of Labor, North Texas State University, Center for Rehabilitation Studies/Client Services, May 1-5, 1978, Supported in part by training Grant, #44-P-30071/6-12, from Rehabilitation Services Administration, Department of Health, Education and Welfare.

MODULE VII

ACTIVITY 7.4.2 Job Analysis

PROCEDURE

READ the following selection and study the sample job analysis.

JOB ANALYSIS PROCEDURE

There are four categories of information that must be recorded in the job analysis:

1. What the worker does
2. How he does it
3. Why he does it
4. The skills involved in the job

Before a job analysis can be of value in developing a work sample, it must indicate the exact nature of tasks involved in the job and define these tasks. The first three categories of the job analysis, the what, how and why, describe the nature and scope of the job tasks. The last part, the skills involved, indicates the degree of difficulty of the tasks that make up the job.

Procedure

1. Observe workers completing typical tasks of the selected jobs. Record a clear, concise, factually accurate statement regarding the tasks

performed by the worker in accomplishing the purpose of his/her job.

2. On an assembly tasks, record the speed and accuracy of the worker in completing the tasks. This is accomplished by stating the time it takes the worker to complete the task and errors made in completing it.

3. List the skill requirements, i. e. manual dexterity, eye-hand coordination, etc.

4. List the equipment, materials and supplies the worker actually employs in the performance of his/her job.

5. Describe in specific terms the work conditions to which the worker is exposed, i. e. time at job, safety measures, contact with other workers.

JOB ANALYSIS

1. Analyst's name: John M. Reynolds

2. Date: November 23, 1977

3. Job Title: Data Processor
   DOT Title: Data Typist

4. Name and Address of Company or Business:

   Margie's Copying Service

   502 Willowbrook Lane

   Austin, Texas

   Phone: 976-5200

5. General Characteristics of Job:

   As a word processor, employee operates one of two IBM Magnetic Card II typewriters and a Document Printer. Materials include business letters, short papers, resumes, graduate school theses and dissertations.

6. Physical Demands of Job; Activities:

Walking	X	Carrying	X
Running		Pushing	
Climbing		Pulling	
Crawling		Fingering	X
Standing		Talking	X
Turning	X (esp. head and head)	Hearing	
Stooping		Seeing	X
Kneeling		Feeling	X
Lifing		Coordinating	X

Sight Recommendations and Conditions:

Sight required to read customer's orders and to proof read products.

Skill Required:

a) 70wpm and ability to adapt to constantly changing products.

b) other skills with IBM Mag Card II are available as training on the job only
c) mechanical aptitude desired.

7. Details of Physical Activities:

a) Constantly turning head and neck to follow original and type material.
b) Long periods of time sitting at a typewriter may be required.
c) Pushing buttons and loading paper into the document printer.
d) Mobility (less than 50') to place order with copying staff.
e) Extensive finger dexterity for the operation of a typewriter.

8. Details of Working Conditions:

a) Working area is cramped, although it could accommodate a wheelchair.
b) Nearby areas have other copying machines generating high noise.
c) Constant flow of people in front of desk area is distracting.
d) Cushioned swivel chair and colorful surroundings.

9. Hazards:

Occasional work with an exacto knife for overlay correction

10. Sequence of Steps in Performing Job:

See attached sheet

11. Equipment Involved:

a) IBM Magnetic Card II (typewriter plus memory bank)
b) IBM 66/40 document printer
c) Various fonts (type balls)

12. Usual Pre-Employment Training:

a) Typing skills 70wpm.
b) Other specific training on Mag Card II processing is available only to IBM customers; therefore, one must be in the business to receive that training. Usually on-the-job training is offered.

c) General work skills in an office environment.

13. Usual Training Procedure on Job:

Training on both machines is available during first weeks on job. An intensive two-training session is offered at IBM.

14. Production Requirements:

a) Notes are posted near word processing center that indicate either 24 or 48 deadline orders are acceptable during that portion of the day.
b) Processor must know exactly the requirements of the customer's order form that is attached to "raw materials".
c) Work must be completed within agreed time frame and then submitted to copy area for subsequent approval by customer.

15. Interrelation with Preceding and Succeeding Jobs:

See attached sheets

16. Teaming with Other Workers:

a) It is often necessary to clarify order requirements that have been submitted by front sales personnel.
b) Work with assistant on word processor production.
c) Consult with art director on best style and art work.
d) Consult with shop manager on long term goals, problems, resources.

17. Classification According to Job Family:

Clerical and sales occupations

Automatic data-processing equipment operators

18. Salary, Wages and Other Benefits:

Salary: $3.00 per hour to $700 per month
a) Profit sharing plan
b) 5 out of 7 paid holidays

c) 2 week paid vacation after 12 mos. employment
d) Sick days provided on a reasonable basis
e) Workmen's compensation
f) Paid group health major medical insurance

19. Other Job Data:

See attached Sheets

20. Speed and Accuracy

70 wpm

21. Additional Comments

This job overall requires independent judgement, initiative, adaptability and responsibility as well as dexterity and accuracy.

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JOB ANALYSIS

In Vocational Rehabilitation, knowledge of both the individual client and the requirements of potential jobs are needed in order to deliniate services which will lead the client to eventual employment. Great emphasis has been placed on diagnostic interviewing, development of well rounded work and social histories, psychological, medical and neurological reports, and vocational assessment to name a few areas in which volumes of information are gathered on individual clients.

The other area, that of job requirements, is equally important, but seems to have received less emphasis in training and actual practice in the field. Certain core requirements appear to cut across a wide variety of jobs. These are frequently known as Critical Vocational Behaviors, Job Holding Skills, or by similar names. These characteristics are generally considered to be known and understood by counselors, evaluators, placement specialists, and other professionals working on the rehabilitation team.

A problem arises when information is needed on a specific job or series of jobs within an organization. Most persons are familiar to some extent with the U. S. Department of Labor, Manpower Administrations, Job Analysis Schedule. This schedule is a very consise, complete tool for deliniation of requirements for specific jobs. Some difficulties exist, however, with this format.

1. It is designed as an all encompasing, multi-purpose tool that requires information far beyond that normally needed by the rehabilitation professional.

2. It requires utilization of the Dictionary of Occupational Titles, Volume I and II, Standard Industrial Classification, and A Handbook for Analyzing Jobs; which may not be available to the person requiring detailed job requirements. Also, if the manuals are available, the extensive training and experience required to effectively use the manuals for performing a job analysis may not have been acquired.

3. The Department of Labor format was not designed for use in rehabilitation, and data relevant to the job for decisions regarding work sample development, job placement and some aspects of vocational counseling are not available.

4. The very way the format is designed appears threatening to many people causing them to avoid doing a job analysis even though it would provide much useful information.

For these reasons a new format for job analysis has been developed that provides the following advantages:

1. It was designed for use by rehabilitation professionals in Vocational Evaluation, Vocational Counseling, Job Development and Job Placement.

2. It does not require outside materials for completion of the major portions of the job analysis, although they could provide useful information.

3. The format was developed with the idea of utility, and modification for maximizing usefulness in individual rehabilitation facilities is encouraged.

To aid in completion of the Job Analysis Format, the attached instructions are provided.

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JOB ANALYSIS INSTRUCTIONS

I. Identifying Data

In all jobs, there is a certain amount of basic information that should be gathered prior to beginning the more detailed accounting of the job. This data serves as a basis for many of the remaining sections, and places the job in perspective for the job analysis worker. Another important aspect of gathering identifying data is that it also assists the casual reader placement officer, other interested professionals, and the analysis reviewer to immediately grasp the basic structure of the position in question.

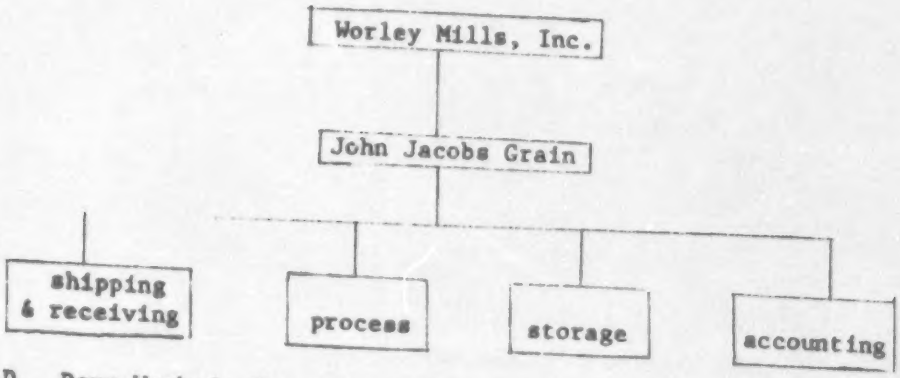
A. Job Title: This is the title of the particular job in question as it is given by the employer. It will often be different than that which is found in the Dictionary of Occupational Titles. (see B) Be sure to record the whole job title and to clarify any abbreviations. Unfamiliar terminology may be defined under comments. (example: washer)

The alternate title may be a second title given by the employer or a title that is used synomously with the above. It may also be a title that has been replaced by modern terminology but which sometimes pops up in conversation on the job. (example: cleaner)

B. D.O.T. Title and code: It may be helpful to indicate the complete D.O.T. title with industrial designation and the six digit code that goes with it. As indicated above, this may or may not be the same title as the employer gives. Alternate D.O.T. titles may be given here. (example: processor, grain [grain & feedmill] 521.885) The D.O.T. title and code would be useful but is not necessary for obtaining a usable job analysis.

C. Additional Identifying Data: (Industry, plant, department, division, section, etc.) Start with the largest designation for the company containing the occupation. If the local business is a subsidiary of a larger concern, then mention that here. Determine the placement of the job within the local operation and show its relationship with other areas of the business. This may be done in a brief narrative format or can be accomplished by a diagram. (examples: Narrative--John Jacobs Grain Company is a subsidiary of Worley Mills Incorporated, which operates on a national level. The "washer" operates in the processing department which is one of four departments operated at the local plant. [receiving and shipping, processing, storage and accounting.])

DIAGRAM



D. Days Worked: The days of the week the employee is expected to work. (example: Monday-Friday or four days on and two days off.)

Hours Worked: The hours the employee is expected to be at the work station. (example: 8:00 a.m. - 4:30 p.m. or 7:00 a.m. - 3:00 p.m.)

This information is especially important where work tolerance, dependency on public transportation and religous days are concerned with respect to training and placement.

E. Salary: Provide the annual salary as well as the monthly figure, weekly figure and the hourly breakdown. This is of great importance when providing occupational information and guidance.

Example:		
	annual	16,000.00
	monthly	1,333.33
	weekly	333.33
	hourly	8.33

F. Number of employees with same job title: Indicate the number of other workers who perform the same job in this section or division of the plant. Again this is valuable data for the Placement Specialist or Vocational Counselor. The number of positions potentially available in the labor market can certainly affect placement attempts or training recommendations. (example: washer 29)

G. Turnover: Try to be as accurate as possible in giving the number of turnovers in that position in the last (1) twelve months, (2) two years, and (3) five years. Even if there are a thousand people employed in a certain occupation, if there is no, or very little turnover, then placement or training recommendations is questionable. (example: 12 months-6, 2 years-8, 5 years-9)

H. Promotion: From_____ To_____
Does the job allow for a promotion (upward mobility in salary and/or responsibility) from the present position to another? Indicate this movement by filling in the blanks. This is a good way to identify a dead end position with very little mobility. More positions may be added if possibilities extend beyond one step.

If direct promotion to more than one other job is possible, indicate all of these possibilities. (example: from washer to cleaning supervisor)

Transfer: from_____ to_____
Show what possibilities there are for a transfer to another similar position as far as pay, benefits, or supervision is concerned. This can also relate to transfers outside the organization for which a person would be qualified. A move to a better paying position is considered a promotion and not a transfer for the purposes of this analysis. (example: from washer to grain dryer)

II. Purpose: The purpose of the job is different than the tasks that are to be performed. The tasks (see III) are the behaviors that are to be expected or shown on the job. The purpose directs the readers attention to why the person does what he or she does--what part in the overall functioning of the business does this position play. State what the final goal is for the job and what relationship it has to the next step on the total process.

III. Major tasks: This is a listing of the steps (behaviors) that are to be performed in the accomplishment of the purpose of the job, along with other information that directly relates to the tasks. These must be very descriptive in order to provide the reader with the best possible concept of what is to be done on the job. This is an extremely important section because it must convey accurately what the person does and what is demanded of him or her. Everyone dealing with the client (Evaluator, Work Adjustment Specialist, Placement Specialist, Vocational Counselor, etc.) will want to compare the individual's assets and limitations with the requirements of the job.

A. Tasks performed: Indicate in a step-by-step manner, the individual tasks that are performed on the job. Break the job down to the simplest steps and describe each one accurately. Tasks can be either mental or physical. It is important to show the relationship between dexterity and machine operation and the processes that must be accomplished on the job. The best way to accomplish this is to actually observe the job. (example: A. Inspects machine by visually observing belts and conveyors; B. Checks water level; C. Pushes red button to start engines; D. Watches temperature guages on engines.)

B. Level of Difficulty: Refers to the degree of complexity of the tasks performed. This will be indicative of the ability level required of the employee. It can refer to intellectual, dexterity, concentration, physical, skill, etc. (example: this position requires a high degree of concentration to ensure accuracy in performance of the job.)

C. Standards: Often certain jobs have production standards which must be maintained in order to continue satisfactory performance. These should be recorded as minimum levels and may include both quality and quantity standards. (example: entrance requirements are production of 55 widgets per hour with no more than 2% reject rate.)

D. Tools or Machines used: Tools or machines can be defined as any object used in the performance of the job. Items from the most simple to the most complex must be considered; from paper clips to computer terminals. (example: operates push button terminal to central conveyer engines and water pump. Uses grease gun to grease conveyor. Uses hand held thermometer to test water temperature.)

E. Materials and Products: Indicate what direct materials or products are a result of this particular job. It may be that the job does not directly result in a product but is a part of the overall operation resulting in a product. If so, indicate this relationship and the end product. (example: central cleaning operation which results in the grain being readied for the drying and storing process.)

F. Time required to reach normal efficiency: Secure the estimated amount of time it will take for an individual to become efficient in the operation. Efficient should be considered the point where the person is left to function on his or her own at the work station without direct supervision and where minimally acceptable production is achieved. This time will vary between jobs depending on the level of complexity. (example: six weeks to reach independent level with an average production of 68 widgets per hour with no more than 2% reject rate.)

IV. Job Setting: This section is intended to enlighten the reader as to the interpersonal relationships and physical location of the job. These are important aspects of a job particularly when working with a handicapped individual.

A. Location: Describe in detail the exact location of the business and the job that is being analyzed. Consider such things as accessibility to traffic and public transportation, ease to find location, and where in the plant the job in question is located.

Diagram if necessary. (example: John Jacobs Grain Company is located on a one way, paved city street in the northwest corner of the city. The building is a large two-story block structure approximately 20 years old. The building is totally inaccessible to wheelchairs. The washer (processor grain 521.885) works on the first floor directly behind the loading area for ease of operation. The work area is approximately 40 feet long and 15 feet wide in the center of the first floor.)

B. Organization: This refers to the layout of the work area as it relates to task performance. Considerations of efficiency and safety should be made. (example: work area is organized so that tools necessary for task completion are within 36" of the work station.)

C. Conditions: Using the D.O.T. classifications, list the various conditions that the worker will experience. If any extremes are noted, indicate the reason for the extremes. Include physical environmental conditions which may be experienced. (example: moisture and humidity [due to water in cleaning process] drafts in winter [due to open ventilation of the room].)

D. Hazards: List any dangers which exist that could prove harmful or have a negative effect on the worker. You may wish to refer to the D.O.T. listing of these conditions. Please include the reason why this hazard exists. (example: slippery conditions due to presence of water.)

E. Supervision received: Explain what supervision the worker will receive, and to what degree the person is supervised. Show this in percentages if possible. Also indicate who supervises the person. (example: this position is supervised by the cleaning area manager who also is responsible for fifteen other employees. It is estimated that direct supervision is given about 10% of the work day and that the worker must perform without this supervision for the remainder of the time. Most of the supervision comes early in the work day and at the end of the shift.)

F. Supervision given: It should be documented when the position requires the worker to supervise others. Of importance here, of course, is how many and how much time is required for this supervision. (example: directly supervises two operator helpers who run the cleaning machine. Approximately 10% of the workers time is taken up with directing and supervising these employees. Fills out time sheets and completes performance evaluations.)

G. Inter-relationships with other employees: Attempt to describe the degree of preparation of the required contact with other employees. This would not only include supervising others but also the workers supervision, his or her contacts during other than working hours (lunch, breaks, etc.) and any company sponsored activities. It is important here to assess the interpersonal skills that will be required of the worker. (example: worker closely supervises two employees and must communicate daily with his/her supervisor. Breaks and lunch are very casual with some workers leaving the area, but most remain in the plant and eat or drink coffee together.)

V. Worker Qualifications

(This section identifies the abilities dictated by the machinery, physical location, etc. This is a very important section for job/man matching.)

A. Physical requirements: Through observation and discussion, determine what physical demands are made on the worker. These may be converted to the D.O.T. specifications and recorded accordingly. Note any unusual activities that may be required of the worker. (example: light, up to 10 pounds, stands on feet all day, must move in and around machinery, reaching and feeding important, some bending.)

B. General Skills: Indicate what other skills are necessary for satisfactory completion of the job. These are in addition to the physical requirements of the position. (example: mechanical aptitude helpful, knowledge of electrical operated machinery, knowledge of basic math.)

C. Education-General: Indicate with a number (year) beside the appropriate category for the position. Remember that these are the minimum educational levels recommended for the satisfactory completion at the job. (example: Elementary 8th courses: basic math, wood shop.)

D. Education-Vocational Preparation: Indicate vocationally oriented education necessary for entry into the job. Place a check by college or vocational education, depending on which is the most appropriate and indicate courses that would be required. (example: Vocational Education ✓ Courses: electrical wiring or automotive mechan'cs.)

E. Training: Possibly there will be no specific Vocational preparation but that the person learns while on the job, through an apprentice-ship or in-plant training or on-the-job-training. Apprenticeship - indicates a time frame one must work under supervision of a skilled instructor. In-plant training - refers to a specific

course of training in the plant with an established time frame. On-the-job training - training provided in plant or out of the plant with a time frame. Differs from "in-plant training" in that a specific course of instruction is not utilized but simply experience on the job. (example: In-plant training ↙ one week course in safe forklift operation - instruction, audio-visual and practical experience teaching modalities.)

F. Experience: Elaborate on the types of work experience or performance on other jobs that the employer feels are important for this position. Indicate if it is an entry level position or if it must have so many years of prior experience. Should the experience be directly job related or could it be in a similar area. (example: applicants must show a stable work history. Should have at least two years experience as an operator helper or one year direct experience as a worker [processor, grain].)

G. Special Qualifications: Show what special certificates or licenses the person must have before assuming the position. This is important in food service, health occupations, and specialized blue collar areas such as welding and plumbing. (example: Certificate of completion of training--Grain processer's of America--two week machine repair and trouble-shooting.)

H. Personality characteristics: Basic personality factors deemed to be required for success on the job. This is especially critical where job placement and on-the-job training are considered. (example: outgoing, with high self-confidence. Highly motivated, self starting.)

Adaptations or Modifications for the handicapped: This topic can be approached from two basic viewpoints: (1)what the employer will realistically do and (2) what could ideally be done to make the area accessible. The analyst should approach from both directions using his or her knowledge of various handicapping conditions and their resulting job difficulties. The employer may be questioned as to how the job could be modified and at what cost. The descrepancy between these two often times will be spectacular.

Comments: Please indicate here any subjective feelings or impressions that you have concerning the tasks, purpose, job setting or other aspects of the job analysis. This is the place for any data that does not seem to fall in any of the other categories. Also indicate any descrepencies between the analysts and the employer's views.

Analyst: Sign and date the job analysis so that follow-up and up-dating may be accomplished at regular intervals.

Changes or updating of the information included in the format should be dated and initialed by the person posting the revision.

Section IV: Unit 5

Job-Tasks Modifications and Re-engineering

Objective

To present guidelines which rehabilitation personnel can use to assist employers to modify job tasks for the severely handicapped homebound without loss of productivity.

Summary

Before a job is modified, one should know what relevant tasks are associated with a particular job or a position (a particular defined job within a section is called a position) and who is going to perform the tasks. This knowledge can best be ascertained through a job/position task analysis, and individual functional analysis, and a job/client matching process (see Chart 1).

The key point to remember in job analysis is that the job tasks have to be performed effectively (Mallik and Sablowsky, 1975). A job analysis cannot be done properly if the analyst is biased due to knowledge of an individual whom he is interested in seeing placed in the particular job. The job should be analyzed objectively according to its own physical and cognitive requirements. In this way, the potential employer will come to feel that his interests are not being overlooked; and a cooperative relationship can be established between the rehabilitation professional and employer. A good working relationship is particularly essential when developing homebound positions, since to do so will often depend on the rehabilitation professional's ability to communicate, educate, motivate, and influence the potential employer toward hiring the homebound employee.

Discussion

It is common practice for large organizations to require all employees in a particular work section, consisting of twenty to thirty employees, to be able to perform each and every task related to the work flow of that section. Usually, some of the work tasks in such an office can be done at home. For instance, the job tasks that must be performed in one order-processing section of a large organization include: bringing the mail, coding and entering information into a

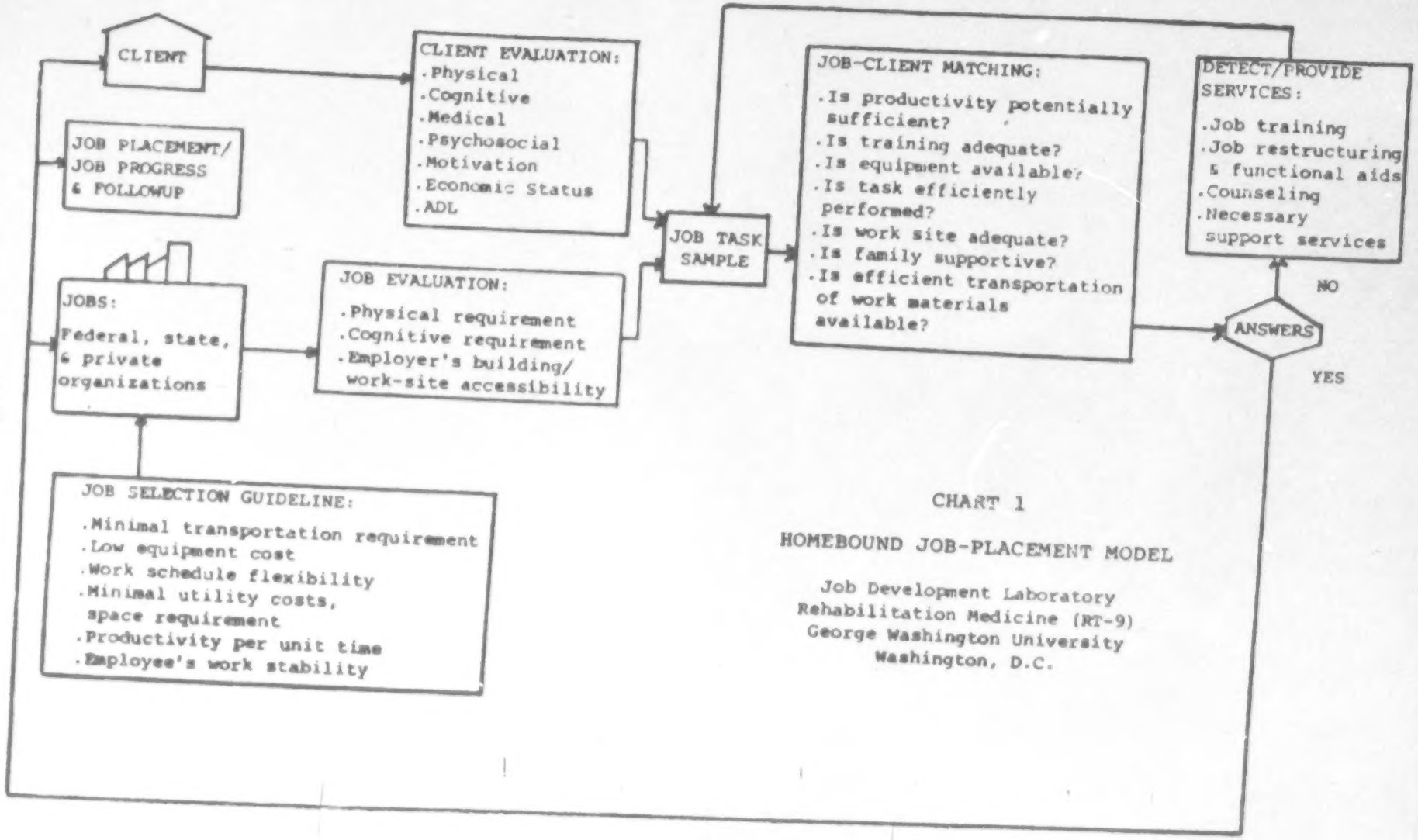


CHART 1

HOMEBOUND JOB-PLACEMENT MODEL

Job Development Laboratory
Rehabilitation Medicine (RT-9)
George Washington University
Washington, D.C.

computer, retrieving information, delivering relevant documents to appropriate sections, etc. While the mail-handling operations would certainly be inappropriate for consideration as a homebound job, the computer entry and retrieval operations might be done effectively by a homebound employee using a remote computer terminal. If all employees are required to do all operations within this section, homebound employment would not be possible. However, if the work flow is re-organized so that a limited number of employees are responsible for completing certain tasks, the addition of a homebound employee to the staff becomes feasible.

Usually, employers expect all employees to perform all tasks in their work section so that, if a few employees leave the job at one time, the job flow of the section will remain intact. This rationale need not be sacrificed in reorganizing to accommodate a homebound employee if the employer divides the total tasks into four or five groups/subsections and rotates periodically the on-site employees in each of the groups/subsections.

Re-organizing the methods and techniques of distributing work flow in an office in order to accomodate a homebound employee can be achieved without loss in productivity through cooperative efforts between employers and rehabilitation professionals. The positive results of such cooperation have been demonstrated by employers working with the staff of the Job Development Laboratory, where many severely handicapped persons have become productive homebound and on-site employees for numberous organizations. Supervisors from these organizations have cooperated in modifying or re-organizing the job tasks of their departments, opening new doors for handicapped individuals. This job-task-modification technique facilitates the job-client matching process (see Chart 1), hence minimizing the costs of job accomodation through assistive devices or engineering approaches.

During the job-client matching process, it is sometimes essential to modify the work environment in order to enhance the productivity of a severely handicapped person. In the following sections, an attempt is made to discuss methods by which persons with different degrees of physical and mental impairments can perform various tasks with adaptive aids.

A. Access to Source Documents

Many people, victims of accidents or diseases, who have reach limitations and are confined to wheelchairs for mobility face many obstacles due to man-made barriers. Difficulties of using the surface of a desk, mobility within the building, and access to files which are kept at various heights are a few examples. The problem is more severe if

the individual has limited or no use of his hands, arms, and shoulder muscles and resultant paralysis of all extremities due to neuromuscular or orthopedic diseases or accidents such as stroke, muscular dystrophy, multiple sclerosis, cerebral palsy, muscular atrophy, spinal cord injury, osteogenesis, rheumatoid arthritis, etc. As individuals in these disability groups are most likely to need desk jobs, the ability to get to source documents is crucial to their vocational success. If necessary, sutiable modifications should be made so that the documents are available to individuals with limited functional capabilities. Solutions may be through:

1. Open file stacks at appropriate height and reach;

2. Microfilmed documents for getting to source information;

3. Getting information into their own terminal from the remote computer using keyboards;

4. Table/desk at proper height.

Visually handicapped people, having no other physical impairments, can get information through optical aids. Examples of such aids are:

1. Hand magnifying glass with or without illumination;

2. Reading machine;

3. Raised letters on file cabinets.

A device called the optacon has been used effectively to solve the accessibility problems of totally blind people provided they do not have any loss of tactile stimulation of their fingers.

For educable mentally retarded people, accessing documents through the utilization of various search techniques (alphabetical, numeric, chronological, or special coding) may not be a problem. But, the lower level of trainable mentally retarded persons may have difficulties in accessing such documents. In this case, easily understandable sequencing techniques are recommended.

B. Communication

The telephone is one of the basic tools through which a homebound person can maintain an open communication channel with the community and particularly with his supervisor (Sullivan, Frieden, and Cordery, 1968). Simple tasks, such as lifting and holding a telephone receiver while dialing the

phone can present a problem for the severely handicapped person who has no grasp, elbow extension and flexion, and no strength in fingers. A flexible extension (gooseneck) attached to a touch-tone phone and holding the receiver in a required position for the person, or a headphone set with a touch tone, can resolve these problems. A person with deafness may face less of a problem in communicating with others by using either a remote computer terminal (ITT) or a telephone with a screen and keyboard. With these devices, the messages appear on the telephone screen in typewritten form, instead of an audible sound.

Writing is another mode of communication that should not be overlooked. If the individual, due to an impaired-hand function, is not able to write, then alternative approaches need to be explored. A few which have been explored are as follows:

1. Hand orthotic devices;

2. Electric typewriter with or without hand rest;

3. Adapted tape recorder minimizing writing for use as a notebook;

4. Rubber stamp (if some words need to be printed over and over).

Many other communication devices and systems have already been developed through research and demonstration efforts. It is hoped that they will be made available nationally to enhance the communication efforts of many severely handicapped persons.

C. Utilization of Equipment

There are many jobs where operation of equipment is a part of job tasks, such as: knitting machines, data-entry terminals, typewriters, duplicating machines, lens-grinding machines, calculators, microfilming machines, computer terminals, etc. In most cases, performance features and control switches on such equipment are not designed with handicapped people in mind: e.g., small knobs are often difficult for the disabled hand to squeeze or turn. If this is the case, a small knob can be replaced by a larger knob requiring less tension or by a lever. All switches should be modified to require only a few ounces of pressure to activate, and they should be placed in a position which minimizes fatigue and enhances productivity.

People with spasticity or who are athetoid may still be capable of equipment operation if their hands can be stabilized on a platform when operating equipment. For the severe cerebral-palsied person, stabilization of the entire

body is usually necessary. The lower part of the body can be stabilized by anchoring the crossed legs with one leg of the wheelchair. The upper part of the body can be anchored by the nondominant hand if needed.

D. Mobility

Problems in mobility for severely handicapped people differ according to the type required. The mobility process can be classified broadly into the following categories:

1. Mobility in the home or at a work site;

2. Mobility within neighborhood/community;

3. Mobility from one community to other communities;

4. Mobility from one city to another.

Items one and two may not be a problem to the less severely handicapped but sometimes may present a problem to the more severely handicapped. Persons confined to a manual wheelchiar may be easily tired due to maneuvering the wheelchair in areas which are covered by heavy/thick carpeting. The solution to this problem is either to remove the carpeting or to cover it with plastic mats. The best of the two suggestions would be to eliminate the carpeting entirely. Another problem for both the severely and not so severely handicapped individual is accessibility of rest rooms, bathrooms, and doorknobs. Solution to these problems may be achieved through widening of the doorways, reducing the tension of the door mechanism, and replacing doorknobs with levers.

Items three and four depend on the availability of accessible transportation systems. A cab may be used by many handicapped people using manual wheelchairs, but the same is not always true for those persons having a handicap which requires the use of an electric wheelchair. Electric wheelchairs pose many problems, one of which is the *transporting* of the chair. Hence, it is recommended that persons requiring the use of electric wheelchairs should, where possible, purchase a specialized van which is equipped with a manual, hydraulic, or electric ramp. Many handicapped persons can drive a van or regular car using proper hand controls and hand orthotic devices to stablize the forearm and hand and to gain enough strength to operate the steering wheel and lever for acceleration and brakes. Handicapped persons with scoliosis or osteogenisis may find it difficult to maintain a regular sitting posture and stability. Several clients of the Job Development Laboratory (RT-9) with these disabilities, having availed themselves of these services, are now driving their automobiles with the help of contour seats and leg supports.

Other devices which have been used at the Laboratory include:

1. Overwheel transfer boards for the handicapped person with limited use of shoulder and hand muscles. This transfer board helps in the easy transfer of the person from his/her wheelchair to a car or vice versa.

2. Helmet cover: persons with epilepsy having seizures without warning may face a health problem in mobility as a result of falling, especially when the individual prefers not to wear a protective helmet because it is unattractive. An alternative to walking is the usage of a wheelchair which eliminates the problem of falling but creates other special problems in mobility. A more suitable solution, however, may be attained by covering the helmet with a turban or by covering it with a wig, thereby making it less noticeable and more attractive.

Inner-city mobility does not only depend on local transportation but on the accessibility of trains, buses, and planes, and their respective terminals: i.e., train stations, bus stations, and airports.

The question may arise: why should mobility other than at home be so important when the primary issues are that of employment for the homebound individual? The answer is that there are many jobs severely handicapped persons can do; however, there may be a need for specialized community-based training or on-the-job training before one starts a homebound job. It is also sometimes necessary for the homebound individual to visit his employer once a week or once a month for work assignments, special discussions, further training, or to discuss a decision-making process.

E. Job Modification

The purpose of job engineering/modification is to provide a maximum independency and to enhance productivity in the sphere of activities of an individual. To do so, the following constraints need to be observed.

1. Simple modifications should be low cost where possible so that one can afford to have such a system or device;

2. Design and fabrication should follow the need of human-engineering factors;

3. Modification of existing equipment and system should be such that it can accommodate both the disabled and nondisabled person;

4. The serviceman should not get confused due to the re-engineering process during times of equipment maintenance;

5. Criteria for safety should be observed.

It is realized that the job engineering is an essential item in a comprehensive rehabilitation process for severely handicapped persons. But, how to accomplish such services is still not very clear. Sometimes rehabilitation practitioners receive these services locally from such persons as welders, carpenters, students from engineering schools and technical schools, and individuals from fire departments and business agencies or labor unions. According to the Rehabilitation Act of 1973, it is mandated to serve severely handicapped persons; therefore, state vocational rehabilitation agencies and comprehensive rehabilitation centers should incorporate a technical support service as a part of their rehabilitation team to meet these needs.

Section Implications

1. Rehabilitation personnel responsible for placement of clients must develop the skills necessary to assist employers to modify tasks which can be performed by the severely handicapped without the loss of productivity.

2. The labor market must be evaluated to determine types of employment in a given area, job diversity, jobs that can be modified, etc.

3. Many job tasks are becoming less complex (due to technological advances) and can now be performed ably by severely handicapped homebound individuals.

4. Several job types which can be performed by the homebound are identified according to organization, self-employment, rural and urban areas.

5. In certain cases, the Small Business Administration may be of use to rehabilitation personnel in assisting homebound individuals establish businesses through loans as well as technical assistance.

6. Placement of the client is the ultimate goal of rehabilitation. This also applies to the severely handicapped homebound client, although proper placement is more difficult.

7. Jobs can be modified through job/position task analysis, individual functional analysis, and job-client process.

8. When jobs are modified, effectiveness and productivity must not be lost for the employer.

9. Adaptive, corrective, and protective devices exist which can be utilized to help the severely handicapped secure and maintain employment.

10. Rehabilitation "engineers" should be members of the rehabilitation team.

Arkansas Rehabilitation Research and Training Center, The Rehabilitation of the Severely Handicapped Homebound, B. Douglas Rice, University Coordinator, University of Arkansas, Hot Springs Rehabilitation Center, June, 1977.